

UNIVERSITY OF CAPE COAST

TRADITIONAL KNOWLEDGE SYSTEMS IN AGRICULTURAL FORMS IN
THE AKYEM AWISA AREA OF THE BIRIM SOUTH DISTRICT

BY

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DECLARATION

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I hereby declare that this dissertation is the result of my own original research, and that no part of it has been printed for another degree in this University or elsewhere.

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I hereby declare that the preparation and presentation of this dissertation was supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

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ABSTRACT

Societies have for many years been governed by norms, values, beliefs and sanctions that are seen from a holistic standpoint as culture.

Ghana has several cultures but how these impact on development with reference to harnessing the traditional knowledge systems (TKS) inherent in them to affect agricultural forms remain unanswered. This study looks at how the socio-cultural beliefs and traditional knowledge systems affect the achievement of sustainable development in the rural areas of Ghana using Akyem Awisa and its environs as a case study.

With sustainable development gaining prominence in the minds of people, exploring how TKS have helped in the achievement of sustainable development goals is paramount. The overriding nature of modernity which is eroding the primary culture has caused the rural folks to desire to harness TKS for the development of methods that can support agricultural forms for the future generation.

Solving practical problems associated with agricultural forms to ensure effective and increased achievement of sustainable development goals, has been found to be possible by the application of TKS. This reduces the over reliance on modern chemicals for high agricultural yield and improved food security, public health as well as good environmental management.

The study thus recommends that the elements of African culture are given fundamental position in the development process of the country to allow the achievement of sustainable development in self confidence.

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I must concede the encouragement and inspiration my family gave me during the period of my study. Thank you one and all.

DEDICATION

This work is dedicated to my family for standing by me during the period of my studies and also to all well meaning friends.

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LIST OF ACRONYMS

AEOs	Agricultural Extension Officers
AGC	Ashanti Gold Company
ATR	African Traditional Religion
CEDIA	Custom Electronic Design and Installation Association
FAO	Food and Agriculture Organisation
FGDs	Focus Group Discussions
IDRC	International Development Research Centre
IFAD	International Fund for Agricultural Development
IKS	Indigenous Knowledge Systems
ILO	International Labour Organisation
MOFA	Ministry of Food and Agriculture
MSLC	Middle School Leaving Certificate
NCC	National Commission on Culture
NCCSG	National Coalition of Civil Society Groups against Mining in Ghana's Forest Reserves
NGOs	Non-Governmental Organisations
SD	Sustainable Development
TKS	Traditional Knowledge Systems
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNESCO	United Nations Educational Scientific and Cultural Organisation

WKS

Western Knowledge Systems

CHAPTER ONE

INTRODUCTION

Background to the study

Ever since the existence of humankind, societies have been governed by norms, values, beliefs and sanctions that have been seen from a holistic standpoint as culture. Culture is often manifested in the traditional institutions in areas of social activity including political, religious and the agricultural [natural] resource management processes. Embedded in these institutions are traditional knowledge systems (TKS), which are actually applicable to various areas of social endeavours. These activities are deemed crucial and often indispensable to the attainment of sustainable development goals in many communities particularly in indigenous cultures in Africa.

Culture, within the social context, is a learned and passed-on behavioural process which is the repository of ideas, values, customs and the everyday lifestyle of a group of people. It is "a way a group of people live, eat, dress, marry, think, and behave" (Nkansah, 2002:4). It is through this social prism that Kendie and Guri (2004:10) assert that "culture is the whole complex distinctive, spiritual, material, intellectual and emotional features that characterize a society." These integral components of culture constitute the force that underlies the beliefs, actions of individuals, and the social cohesion within any given

community. Put differently, culture informs the way and manner people relate to their neighbors, society or community and, to a very large extent, nature. The ethical manner in which one conducts himself or herself defines that person (Batuuka & Nkanda, 2005:3). These features are therefore crucial for the survival and sustenance of local people. Consequently, the manner in which any particular community observes and applies these belief systems reflects a distinct combination of physical, scientific, socio-economic, as well as management of resources in the traditional environment including the practice of agriculture. For this reason, the role that culture plays in development cannot be overemphasized (Bediako, 2003:1).

The perception held by most indigenous people of African communities that their culture is the nucleus of socioeconomic development is premised, at once, on a spiritual as well as a utilitarian conception of nature and, for that matter, land, forests and rivers. According to Haverkort et al (2003: 139), rooted in African cultures is

“...the perception that the earth is associated with the concept of a mother or the womb. It is often considered as a deity and the property of the gods which was given to the founders of a clan or tribe who were the first settlers in the area. Traditional functionaries such as the earth priest exercise spiritual control over the land. A wealth of information exists about agricultural TKS, especially on soil classification and practices of soil management. Mulching, use of water in plant holes, soil and water conservation, traditional erosion control, and irrigation are all examples of effective traditional practices”.

Beliefs and traditional systems which regulate land use and tenure are also practices that are predicated on this worldview. As a developing country, Ghana boasts of a rich diversity in ethnicity and culture. The National Commission on Culture (NCC), a constitutionally constituted custodian of Ghana's cultural heritage has a national policy, which spells out the very meaning and conceptualization of culture as perceived by the different ethnic groups in the country. The Commission notes that culture to the Ghanaian, means "life-style," manifested and engrained in the social psyche of a particular people. In a broader sense, culture describes human behavior models at different levels of society, i.e. the individual person, family, clan, ethnic group and nation (Anquandah, 2004).

The Commission also provides a formal definition of culture which, ensconced in centuries of cultural legacy, establishes a linkage through which important aspects of past and present values and traditional institutions converge to produce a positive trans-generational interface for social cohesion and development. In this definition, the empowering elements of our cultural heritage are reclaimed as well as those that are not so empowering (Apusigah, Issaka & Afegra, 2005). Other anthropological experts have also made significant contributions to this policy by contribution to the search for the meaning of culture as well as the need to manage culture as a process of coordinating group efforts vis-à-vis group goals through the setting up of roles and making up the systems of management (Donnelly, Gibson, and Ivancevish, 1992) in order to ensure development in a sustainable manner.

In agreement with tradition, socially accepted frameworks, along with the manner in which human beings live their lives – a way of being, relating, behaving, believing and acting – distinguishes different cultures and traditions. An important case study is India, where cattle (*zebus*) is considered sacred and allowed to “browse uninhibited on the street” (Schaefer & Lamm, 1997:32). Killing a cow – for whatever purpose – is forbidden. Contrary to this Indian scenario, the animal remains one of the main sources of protein and a delicacy for most Ghanaian communities.

Cultural diversity of this sort thus highlights an appreciation for the fact that practices, identity and values –the software of development– play a significant role in setting directions and building commitments for a common communal purpose among societies (UNESCO, 2005). It is in this respect that development partners at both national and international levels have to respect, consult and utilize traditional knowledge systems inherent in the institutions that serve as the overarching support systems for various cultures. Such recognition for local resources ensures a sustainable continuity in development projects and programs and integrative grassroots partnership and ownership of such development interventions. By the increasing number of development agencies, such as the World Bank, UNESCO, IFAD and FAO, programs that focus on traditional knowledge systems now have become well established. Besides the United Nations, conventions such as UNCBD and UNCCD, acknowledge the importance of indigenous knowledge and traditional practices in the protection of the various forms of agriculture.

In contemporary Africa, "traditional knowledge systems (TKS) and its values still are an important driving force in people's decision making, which can be seen as a point of articulation for development activities" (Haverkort et al, 2003: 137).

A recent publication by the United Nations Development Program (UNDP) also specifically addresses the need for integrating local and global knowledge as one of the challenges for technical cooperation (Haverkort et al, 2003: 27). This integration will greatly enhance the ability of local people to proactively and successfully engage in viable sustainable development goals. The sustainability of projects and programs as well as the practices of traditional knowledge systems constitute the main processes and goals that underpin sustainable development. In recent times, the belief systems of many indigenous people have played important roles in the attainment of their development, so they are often times combined with a formal religion and can be replicated in agriculture. Tabuti (2006) asserts that "the pivotal role of TKS to sustainable livelihood and national development is universally recognized" (Tabuti, 2006: 1). Pointing to the 1999 declaration on indigenous knowledge for Sustainable Development, it was apparent that the empowerment of local communities was promoted by traditional knowledge.

Sustainable Development (SD), a key concept in contemporary conceptualization of global equity and development, has gained worldwide prominence and acceptance. An important report on the framework entitled "Our Common Future," defines sustainable development as "a development that meets

the needs of the present without compromising the ability of future generations to meet their needs” (Williams & Millington, 2004:2).

Traditional conservation practices were guided by spiritual norms such as taboos and sanctions (Tabuti, 2006: 1). Sacred days were set aside ['*Sabbath* '] to allow the land some “rest” and the Akans refer to these days as '*addae*'. From this standpoint, the application of traditional knowledge systems forming development informs the main processes and goals –the driving force - that underpin sustainable development. The failure to embrace traditional knowledge system as a critical component to achieving sustainable development in modern times has, in part, resulted in the “extinction of about 11,046 plants and animals every year” (Ghana Wildlife Society March, 2007) and cynics have now run out of terms to describe the darker picture of the worlds deteriorated environment.

It is argued that more often in developing countries, access to modern technology is scarce which calls for the use of indigenous knowledge that emanates from the existing cultural institutions. Several studies have pointed to the increased significance of traditional knowledge and indigenous knowledge systems in sustainable development (Boon 2005: 1). Even though “changing times and situations require a solution which the traditional forms can no longer supply it is often sufficient to adapt an antiquated item to a modern context of construction. This process of innovation, becomes a living proof of continuity of the traditional forms” (Clemmons and Coulibaly 2004: 109). In order to ensure the continuity of this, it is important to acknowledge that traditional knowledge forms and institutions – family, kinship, religion, taboos and even witchcraft –

have a great deal of bearing on the development process of the various communities in terms of the forms of agriculture. In this direction, traditional knowledge systems which are found in traditional institutions of the communities and which are inspired by their cultures become an existential imperative.

In this study, there is frequent interface, and indeed, a convergence of both Indigenous Knowledge System (IKS) and Traditional Knowledge Systems (TKS) such that there is a seamless interconnectivity in function and relevance to sustainability in agriculture and agricultural forms and the socioeconomic dynamics of rural life.

Knowledge systems can be classified in two categories. According to Dewes- Boanas (1993), two main categories of knowledge systems can be distinguished: "traditional knowledge systems (TKS) and the western knowledge systems (WKS). While western knowledge systems (originating mainly from the United States and Western Europe) are universally known and accepted without reservation due to their accompanying pervasiveness notably through the power of advanced technologies, education and economic superiority, traditional knowledge systems, are often confined to specific areas and are suppressed in most parts of the world" (Boon 2005: 2). The suppression of traditional knowledge in most parts of the developing world has contributed to the rather fast speed at which modernity is metaphorically drowning the riches of traditions and also eroding the beauty of the indigenous African cultures; thus rendering the once very socially important traditional institutions powerless, particularly in urban populations.

In spite of the fading nature of traditional values from cities and towns in most developing countries, the system remains an indispensable necessity in village life, and in many traditional societies. Traditional knowledge systems, together with the elements of culture that have supported the management of land as part of the forms of agriculture, the environment and the economic practices, are still strongly rooted in traditions of culture in most rural communities. This phenomenon is likely to prevail over time, provided that the positive elements inherent in traditional beliefs, values, norms – as well as sanctions – are tapped from the rural communities, preserved and protected for posterity.

According to Xu (2000), understanding the traditional knowledge systems of culture is an understanding of the social, political and the natural reconstruction process, which consists of cosmos, corpus customs, beliefs, taboos, religion and institutions to guide human behavior by adaptive processes. For traditional knowledge system to be relevant and an effective ally to sustainable development initiatives, it is necessary to “take into account and build upon the good understanding of the role played by ...cultural variables such as norms (the rules and regulations), values (principles, standards, ethics, ideals, morals), and beliefs (way of life, thinking, viewpoints, ideas)” (Bediako, 2003:1).

Adaptive processes come about as the TKS are generated and used by the people themselves. Such systems innovate from within and will also internalize, use and adapt external indigenous knowledge to suit the local situation. Traditional knowledge systems are not the exclusive preserve of any one particular group of people. Indeed, every community possesses some form of

traditional knowledge, be it rural or urban, settled or nomadic, original inhabitants or migrants (Boon, 2005:2). It is in the light of this assumption that locally generated life-sustaining systems become even more crucial for sustainable development in Africa.

In many parts of traditional Africa, norms, values, beliefs, obligations, sanctions and human relationship form part of their culture. In addition, they constitute the bedrock of the knowledge system of traditional institutions, often harnessed by the local people for sustainable development as the following examples suggest. A more apt example on the efficiency and relevance of TKS is one offered by Gorjestani (2005) on Mozambique where fifteen years after the civil war:

Community leaders ...managed about 500,000 informal 'land transactions' and helped in the settlement of about 5 million refugees and displaced persons within two years. Most effectively, they achieved this without direct external donor or central government." Also, traditional local authorities relied on indigenous, traditional laws to resolve potential conflicts arising from competing claims to land by returning refugees and those who settled the lands during the wars (Gorjestani, 2005: 1).

Arguably, these traditional laws emanated from their local realities. It is a potent illustration that confirms the theory that TKS are part of larger cultural systemic values, which contribute significantly to development. Communities that take up development activities, neglecting the local practices more often than not, fail to succeed (Kendie and Guri, 2004:5). Indeed, Boon (2005) posits that

“culture and knowledge system of the indigenous people and their institutions provide useful frameworks, ideas, guiding principles, procedures and practices that can serve as a foundation for effective endogenous development options for restoring social, economic, and environmental resilience in many parts of Africa and the developing world in general.” (Boon, 2005:2). He further argues that it is “essential that TKS in the continent should not be subsumed by the domination of cultures that notoriously foster inequality and materialism” (Boon, 2005:2).

Currently, projects are underway in Ghana, Kenya and Ethiopia “to promote medicinal plants as an integral part of health-related indigenous knowledge (IK) to provide alternative sources of income to maintain and protect biodiversity” (Gorjestani, 2005:4). Through the strength of the TKS, sustainable herbal medicine was preserved and advanced by applying traditional practices to ensure sustainability.

Research shows that indigenous knowledge (IK) is increasingly assuming significant roles and gaining increased prominence in many developing nations. Gorjestani (2005:4) notes that “recognition of IK is increasingly becoming part of the development agenda: national initiatives and policies are emerging; civil society groups are forming a broad base of support; local initiatives are multiplying; and the number of development projects and programs integrating IK is increasing.” As matter of fact, development in many local populations is deeply rooted in, inspired and supported by the traditional knowledge system of the existing socio-cultural practices.

People tend to “over-exploit nature” (Kendie and Ghartey, 2000: 60) in order to catch up with modernity. In pursuit of these needs the cultural institutions and traditional knowledge systems inherent in these cultures are often ignored. The apathy to which invaluable traditional value systems are subjected, threatens their very existence in general and traditional agricultural forms and environmental preservation methods in particular. The requirements of the contemporary social order are such that there is a pattern from a pro-western worldview. There is a perception that:

“Indigenous people and traditions are less progressive, and, as a result, many groups of indigenous people, especially the younger generations, are influenced to devalue their native cultures and to adopt new lifestyles and technologies. Consequently, traditional knowledge systems have not been captured and stored in a systematic way and therefore faces the danger of extinction. The appetite for modernity and advanced technology is threatening the institution of knowledge held by native people. A good number of indigenous groups in Africa and elsewhere in the world have suffered from long-term discrimination, inequity and exclusion from the planning and execution of development programs and projects” (Boon, 2005:3).

Such trends have adversely impacted sustainable development in the agricultural sector. Communities use traditional knowledge at the local level as the basis for decision making pertaining to food security, human and animal health, education, agricultural and natural resource management and other fundamental economic and social activities. TKS is a key element for the social

capital of the poor and constitutes a core asset in their efforts to attain self-independence and self-sufficiency. For these reasons, the potential contribution of TKS to locally managed, sustainable and cost-effective survival strategies should be promoted in the development process (Gorjestani, 2005:1). These strategies, when promoted, will rope-in an incentive for culture, and along with it the various cultural practices that were hitherto, weakened and therefore of no immediate functional currency, as the wheels of sustainable development.

All the structures that shape TKS have not made significant in-roads in the development of Ghanaian communities towards the achievement of sustainable development from a macro perspective. At most, their impact has been very minimal. This is largely due to the fact that socio-cultural beliefs and practices are today no longer attractive to most people. This is in view of the fact that, there is only a minuscule fraction of communities today that appreciate, for instance, the work of traditional religious institutions such as the herbalist, the traditional priest and traditional rites, festivals, as well as various indigenous forms of agricultural practices. This is so mainly because of the influence western knowledge systems (WKS) have had on local people, especially the elite, and in the area of governmental policymaking. Similarly, the mounting population growth, which is simultaneously tied to insufficient sources of alternative employment, and technology are partly accountable for downward spiral in the recognition of indigenous cultural values (Kendie and Gharthey, 2000: 60).

The ability of people at this level to preserve their rich cultural values and natural resources in a more sustainable manner is eroded and has given way to

over exploitation of resources in order to service macro commitments abroad and also to satisfy the interest of foreign trade partners. This trend renders local cultural institutions and traditional knowledge heritage increasingly irrelevant.

Statement of the problem

According to the modernization theory, Third World countries are traditional in nature. In other words, they are static and rooted in traditions that are unchanging. Traditional knowledge systems which derive their origins from culture and traditional institutions are deeply steeped in the practice of agriculture vis-à-vis land and land use, forestry and forest use, as well as river systems. This kind of traditional knowledge system tends to have a stronghold in rural areas in developing countries where development is often at the lower rung of the modernization continuum. As Africans, we have had ways of incisively and thoughtfully understanding our worlds. We hold very deeply that nature is our main source of livelihood – a mother, who provides and sustains.

Traditionally, as a people today, we have basically simplified our existence with regard these three worlds: the physical, the social and the spiritual worlds, with a self-styled civilization and its associated difficulties and challenges (Apusigah et al, 2006:1). And, apparently, the significance of the connection between these three worlds has unfortunately been diminished, giving way to greed. The Akyem Awisa community and its environs have not been left out of this cultural neglect, thereby denying the population the opportunity to translate

these values into best practices with regard to the management of natural resources and agricultural practices for sustainable growth.

For the purpose of this study, the problem statement asserts that the neglect of traditional knowledge systems – generated by the cultural beliefs and practices such as those provided by traditional priest, herbalists, soothsayers, chieftaincy, the family, festivals, rite and rituals –in the Akyem Awisa community and its environs, has rendered the various agricultural and environmental management practices inefficient and insignificant to sustainable development policies and initiatives in recent times. It is also important to point out that inadequate research and documented materials on the study of traditional knowledge systems generated by cultural institutions in relation to the various agricultural forms and their influence on sustainable development in Ghana has not helped in the effort to position traditional knowledge system as the new frontier for growth.

Objectives of the study

The general objective of the study is to examine how existing traditional knowledge systems (TKS) have contributed to sustainable development goals in the rural agricultural practices in Akyem Awisa.

The specific objectives are to:

- identify the elements of TKS as a subculture.
- assess the extent to which the existing TKS are able to promote the
- achievement of sustainable development

- investigate the extent to which foreign influence notably hristianity, education and government policies have impacted the legacy of indigenous socio-cultural beliefs and practices particularly in the management of natural resources
- recommend ways through which TKS can be harnessed and mainstreamed into sustainable development paradigms

Research questions

An attempt is made in the study to address some critical questions such as:

- What are the major elements of TKS?
- What socio-cultural beliefs exist to promote TKS to achieve SD?
- What are the various natural resources available to the community?
- What utilization and conservation practices of natural resource management are inherent in these socio-cultural beliefs of the people in the study area?
- How have modernity (religion/education) and government policies impacted socio-cultural beliefs in the management of natural resources?
- How can socio-cultural beliefs and practices be synchronized and integrated in the development models to support sustainable development practices?
- What is the way forward?

Scope of the study

The study is intended to be an ethnographic study into prevailing traditional knowledge systems or the lack thereof in the study area to ascertain the levels of interactions of these values and sustainable development practices in the area of agricultural practices and biodiversity and ecological management. In order to get answers to these questions, an inquiry into applicable government policies in agriculture and natural resource management and extraction is necessary. Other important variables to study include gathering qualitative inputs on the impact of foreign values such as Christianity, Islam and education on indigenous belief systems. For instance, has western-based formal education and contemporary hi-tech had any impact on the local perception and practice of indigenous knowledge? If so, has this impact interfered in the communal perception of agriculture and the ecosystem particularly in approaches to farming and environmental resource management? Critical focal areas will include variables such as land and land use, forest and forest use as well as the river systems and their control. A major limitation of this study is the inability of the researcher to segregate the Awisa and Bogyeseango communities. As a matter of fact, these two communities have increasingly merged into one to become one communal entity. The two communities are therefore treated as one unit for the purpose of the study.

Significance of the study

This study is intended to contribute to the general body of knowledge in the field of sustainable development and the environment. It is also expected to serve as background information for private and public sector stakeholders involved in policy formulation in projects relating to agricultural development and environmental preservation and use particularly as they affect rural communities in Ghana. It could also be a handy reference guide for awareness programs on the subject. In this regard the findings of the study could assist in the design of policy for educating the public. It could also be a timely call to action on the need for further research into the study of effectively incorporating traditional knowledge systems into emerging sustainable development frameworks in developing economies.

Finally, the study is expected to contribute to the promotion of intercultural synergy between traditional and modern means of socioeconomic development. This work is about the need for an inclusive synchronization of the positives inherent in traditional knowledge systems (TKS) and foreign values and technology.

Organization of the study

This study has been structured into five chapters with the following details: Chapter One is the introduction of the study in general and discusses the researcher's objectives for undertaking such a study. The scope of the study captures and discusses the existence of TKS as well as probes into how other

variables such as government policies, foreign influence and modernity affect culture. Mention is also made of the importance of this study.

In the second chapter, literature related to the study is discussed bring together the diversity of available scholarly work on the subject. It is based on this analysis of literature that the conceptual framework for the study was adopted and modified for the study. The methodology which presents the procedures and techniques used for data collection for the research is found in Chapter Three. It outlines the study area, population, samples and sampling procedures, the research design as well as the data collection procedure. Chapter Four presents results and discussions. Here, variables such as age, religion and education are analyzed in graphs and charts. The various agricultural forms are organized and used within the sampled communities vis-à-vis culture. The indicators of fertile soil, drought and weather patterns according to TKS and the peoples' perceptions about agricultural forms are also discussed. The closing chapter summarizes the study, extrapolates some conclusions and makes recommendations based on the core findings.

CHAPTER TWO

LITERATURE REVIEW

Introduction

In this section, the researcher appraises and analyzes other parallel works that are related to the topic and then build a conceptual framework from them to support the work.

Socio-cultural beliefs and practices in traditional communities

Notwithstanding the extensive impact Christianity and Islam have had on indigenous way of life, traditional belief systems are still prevalent, and continue to be an integral part of the social fibre, and in fact, functionally indispensable in many African societies (Haverkort et al, 2003: 14).

Kendie et al (2004: 2) have argued that socio-cultural practices have yielded invaluable outcomes for sustainable development such that they have endured the test of time under a very challenging global order characterized by constant transformation and Western cultural intrusions. Consequently, they argue that any activity that offers support to community initiatives and growth that derives its source from such indigenous practices promotes respect toward sustainable development, and encourage a proactive response and participation from the local population. As Rattray (1923) and Sarpong (1974) observe, "in all

communities, there are myths, beliefs, fables and taboos that have come to govern the relationship between the society and natural resources. These belief systems serve as a potent force as the individual tries to solve everyday problems of survival". Similarly, Nukunya (1992) posits that traditional systems encompassing socio-cultural beliefs and practices are necessary not only because they serve as the baseline for change but also because they help us understand the present.

Culture is often manifested in traditional institutions in areas of social activity such as governance, religion and faith, agricultural practices, and natural resource management. Traditional and spiritual leaders are often the custodians of these indigenous institutions. Among others, principal to their core responsibilities as custodians of traditional values and institutions is the advocacy and promotion of traditional knowledge systems (TKS) which are often universally applicable to various areas of social and economic activities of many indigenous populations in Africa. These activities, rooted in traditional knowledge institutions, contribute invaluable toward the realization of the general goals which constitute the underpinning framework for sustainable development (SD). Thus, it is worth discussing some of the institutions that are seen as the repository of the collective wishes, wisdom and aspirations of a people and the creed they live by.

Chieftaincy

Most African societies revere traditional chieftaincy institutions seen as the symbolic epitome of a people and their culture. Kendie et al. (2004)

underscore the existence of the chieftaincy institution in southern Ghana as one of the very important traditional institutions. They further observe that these institutions are personified through the traditional set up of the chief (often a male) and the queen-mother. These two persons are the occupants of the respective stools and are therefore given absolute support and reverence inspired by communal belief and value systems and a symbolic demonstration of their religious commitment to the stool to which all hold allegiance. The stool is the bastion of their cultural pride and communal identity (Kendie et al, 2004: 4; Nukunya, 1992: 69). In this regard, the chiefs see to it that the values, norms and sanctions of the land are adhered to for sustainability.

Chieftaincy makes room for larger decision making groups of "traditional state levels" to take political decisions [in the chief's court] (Abotchie, 2003:2). In addition, chieftaincy has the ability "to exercise spiritual powers" (Kendie et al, 2004:11). They further assert that good leadership skills can only emerge when the leader of the community, who is also the chief arbitrator and mediator of problems, is gifted with certain qualities that are uniquely required of a man of such status – i.e. taking initiatives, sound decision-making and also has the ability to delegate responsibilities Abotchie (2003), through this prism, asserts that the family is basically the root of "chief-ship" and the role of the chief is therefore leased to him by the family lineage by head of the clan to preside over the decision making circles at the lower level. Most of the decisions taken at such levels strengthen the management of the agricultural forms to ensure their sustainability.

Kendie et al (2004:11) note that, amongst the Akans, chiefs who are also political leaders could be removed from office upon breaching traditional rites such as failure or refusal to observe established taboos and neglecting religious functions. Abotchie (2003) also observes that conformist behaviours are rewarded with prized property such as good health, healthy children, good harvest and success in general, while behaviours that are considered infractions on the norms, values and taboos of the community incur negative repercussions such as infant mortality, droughts and infertility. In order not to bring disgrace upon the family and its leaders, and to ensure a successful generational succession of power, such behaviours are often avoided by adhering to the dictates of the institution evidenced by a more responsible lifestyle and leadership.

Chieftaincy helps to maintain peace and stability through the exercising of the military function; the settlement of disputes through the exercising of the judicial function; presiding over meetings and discussions that affect the state such as land tenure, tolls and levies; marriages and communal labour (Abotchie, 2003). Additionally, chiefs preside over certain economic functions that generate "revenue... from court fees and fine, taxes and trading activities" (Nukunya, 1992: 70).

Given the incredibly fast pace at which traditional values and the core essence of traditional institutions are being eroded in the contemporary African society, it remains questionable if these chieftaincy responsibilities are conscientiously observed as potently as in the past. Awusabo-Asare et al (2000:5) note that the royalties obtained from giving out long-term lease concessions to

mining, logging and agro-based companies have become the major obsessions of many chiefs who hitherto, were "expected to hold the land and its natural resources in trust for the ancestors, the present and future generations and the long term interest of the community".

Abotchie posits that the only role that has been effectively preserved by chieftaincy has been the religious functions of the chief. This, he notes, has been largely attributable to the persistent resilience of traditional religious beliefs and practices in spite of the proselytizing -converting- power of Christianity (Abotchie 2003:17). In effect, communities involved in such practices, regard as high priest the occupant of the stool and the most valuable interlocutor -partaker in conversations/dialogue- in the tri-relationship between the living and spiritual world and the Supreme Being. This obligation places an enormous responsibility on the chief to uphold such spiritual and communal trust.

In traditional societies, the position of the chief is considered very important. Due to their function as an important channel of communication between their subjects and the government, the chief act as a crucial negotiating interlocutor between his subjects and the government, and is often endowed with the clout to influence and affect government policies that have direct impact on his traditional jurisdiction. This, in part, explains the prominent place that these institutions hold in the Ghanaian Constitution even in the present era of a globalizing world and significant presence of foreign influence in the political, economic and social psyche (Abotchie 2003).

Rituals

According to Abotchie (2003:11), rituals are a “formal stereotype sequence of acts performed in a religious context to achieve a pre-determinable emotional or physical consequence.” There are explanations for a variety of rituals and those who perform them do these conscientiously to experience certain profound metaphysical impact. He observed that “the act of pouring libation associated with the installation of a chief, the out-dooring of infants, puberty rites, and funerals” (Abotchie 2003:11) constitute part of the motley of traditional rituals. Abotchie also notes that rituals can also involve important communal activities and critical periods of an individual’s continuing life experience and socioeconomic gratifications such as planting, harvesting, fishing, birth, puberty, marriage and death (Abotchie 2003:11 quoting Busia, 1954). All these bring people together in one of communality and stability and in Ghana; the ritual aspect of the religious functions of culture dominates the social fabric.

Taboos

“Many traditional conservation practices are guided by spiritual norms, e.g. taboos” (Tabuti, 2006:1). Taboos consist of traditional social structures of prohibitions that deter individuals from engaging in activities and behaviours atypical of the social norm. In other words, taboos are an informally codified set of don’ts that regulate social behaviours in indigenous communities. Abotchie (2003) notes that the existence of these taboos, standardizes the behaviour of community members and, in addition, their existence gives them a kind of

religious awakening energized by their day-to-day understandings of the traditional folkloric tales and mythologies.

Norms

Norms are normative conventions that are not found in statutory books but nonetheless guide people towards culturally and socially acceptable definitive paradigm of the morality of good and bad in indigenous societies. Schaefer and Lamm (1997) assert that every community has ways of urging and making obligatory behaviours that it perceives as apt and those that are perceived as repelling and castigating behaviours deemed as out of place vis-à-vis socially acceptable behaviour (Schaefer and Lamm, 1997:40). Axioms and wise sayings such as “enquiring of the elders before a final decision is taken,” “respect for elders” and “thou shall not steal” are examples of norms that span across the varied gamut of cultures in Ghanaians.

According to Schaefer and Lamm (1997), norms are established standards of behaviour maintained by a society. Norms have to be clearly spelt out and comprehended in the community in order to become enforceable and effective. They have been dichotomized by sociologists and ethnographers as formal and informal. Formal norms encompass strict codified rules punishable by law. Conversely, informal norms are very well understood by the people but are not necessarily documented. They are, however, classified according to their relative importance. It is the informal norms that dominate most indigenous knowledge

and perhaps, the most critical in terms of integrating cultural values in modern development processes and goals.

Schaefer and Lamm (1997) classify norms as *mores* and *folkways*. *Mores* are seen as norms that are vastly indispensable to the wellbeing of any group of people, and they symbolize their most appreciated principles. Violation of these mutually accepted norms can lead to severe punishment. In view of these facts, each group of people demands obedience to it and the re-visitation of such principles will push forward the development process. In Ghana, most communities have very strong *mores* against social vices such as murder, disloyalty, and socially untoward behaviour towards the elderly, inter alia.

Folkways are, on the other hand, those norms that govern the day-to-day behaviour of any group of people and, when violated, raise relatively little or no anxiety. For example, "cooking at night" or "whistling at night" and "hitting the pestle in the empty mortar" would not attract a fine or penalty. Yet, their role in shaping everyday behaviours of the components of a culture and the promotion of sustainability of traditional institutions cannot be ignored.

Schaefer and Lamm (1997: 41) posit that the "acceptance of norms is subject to change as the political, economic and social conditions of culture are transformed". For example, under the traditional norms of most Akans, some rivers and sacred groves are not to be encroached by anyone on sacred days. However, these norms have been changing in recent times as a result of eroded traditional beliefs and the impact of modernization. From a similar worldview, Dei (1993) cited in Awusabo-Asare, Kendie and Abane (2000: 5) contends that

“traditional norms, rules and regulations did govern resource use patterns and were instrumental in conservation; these traditions are breaking down very fast as the modern economy with its individualistic and materialistic tendencies gain widespread currency.

Sanctions

When norms are violated the offenders receive sanctions which “are penalties . . . for conduct concerning social norms” (Schaefer and Lamm, 1997:42).

Values

Even though personal goals and life ambitions often originate from an individual’s will and ingenuity, Schaefer and Lamm (1997) note that it is their culture that forms the base of those goals, which stem from the values the people have built over time. Values are explained as “the collective conceptions of what is considered good, desirable, and proper – or bad, undesirable, and improper – in culture” (Schaefer and Lamm, 1997:42). They point to what is deemed to be preferred by society in their culture as well as what is found to be imperative and ethically acceptable. As a critical element of culture, values influence the way people behave and serve as a decisive factor for evaluating the way people conduct themselves.

Values may be “specific such as, honouring one’s parents...or general such as health, love, and democracy” (Schaefer and Lamm, 1997:42), and

education. But there is a constant undeviating correlation between these fundamental basis of culture concretized in values, norms and sanctions in any given culture. For instance, if the culture of a society highly looks at private property as a basic value, it will almost certainly pass laws against theft and vandalism. Kendie and Ghartey (2000: 60) argue that "the breakdown of traditional value systems that helped to protect resources and their replacement with the profit motive (cash nexus) and individualistic tendencies is a phenomenon which encompasses environmental degradation, thereby inhibiting communal pursuit of environmental sustainability and other long term development conservation initiatives.

Schaefer and Lamm (1997), again, proffer a similar line of argument. They argue that as a nation strives to develop and sustain its cultural institutions, it becomes imperative for that nation to build on these pillars of culture in order to accomplish their espoused goals. Values of a culture may undergo an evolutionary change but for the most part, many cultures remain stable for generations. For instance, it is believed that "the bush is a source of development of strict work ethics: one should work hard in order to extract a living from the bush and this translates into hard work everywhere" (Kendie and Ghartey, 2000:63). Socially, communal and deeply appreciated values are an essential part of the Ghanaian psyche (Schaefer and Lamm, 1997:42).

The extended family

The family is equally an important social unit and a traditional institution. The family supports the development of a sustainable culture through a variety of functions. The family, in different cultural settings, reflects “particular cultural circumstances of the societies including their broader social base, the economy, politics, technology as well as religion and ecological orientation . . . In a continent like Africa, it exhibits cultural unity” and institutional structural cohesion (Awendoba, 2002: 88).

According to Nukunya (1992), the family can be classified into three groups: namely, the nuclear family, the extended family and the domestic group. All these units perform a diversified set of functions such as nurturing a child within the family structure into a responsible adult, socializing the individual and equipping them with economic and other life-enhancing skills. The family’s involvement in the development of the individual – from childhood to adulthood – is through the informal system of life-sustaining social education (Nukunya, 1992:48-49).

Nukunya, has argued that the family has phases that promote the sustainability of culture. The first phase, which he classifies as *expansion phase* endures until the couple exhausts the reproductive cycle of childbearing. The second experience is described as the *fission and dispersion phase*. This phase is marked by the marriage of older children in the family until the moment the last sibling is married out. Finally, the last phase is what he calls the *replacement phase*. During this phase, in certain indigenous societies, one of the siblings

would be expected to relocate to the parents' house upon their death to preserve and inherit the family's traditional legacy. He again argues that these three stages of the familial cycle are not necessarily mutually exclusive. The constant overlap on this continuum of generational continuity ensures the sustainable survival and integrity of the family system (Nukunya, 1992).

Contrary to European families, "the African child may or may not live with his or her own parents; some children live with other relatives" (Awedoba, 2002:89). Awedoba observes that fosterage was a common practice in the past; however, it is more experienced in urban areas where, for instance, the "girl-child" is sent to live with relatives who are in gainful employment ...to serve as "maidservant" and domestic help. In spite of these, the varying degrees of social construction of the family are non-static. Rather, they are "subject to change in many parts of Africa, responding as they do to innovations and the influx of foreign ideas and institutions" (Awedoba, 2002:88).

From Nukunya (1992:51) standpoint, "the lineages remain as people come and go. They provide a person with his political and ritual status. They keep going aspects of the society which are more emphatically collective or communal than personal or individual". It is against this backdrop that he sees the "organized domestic life". Kinship in the narrower sense is in the perspective of a man's relationship to his kinsmen. These relationships within the domestic groups serve different warm and more basic requirements than the lineages do. Thus, generating interactions that support the basic necessities of life.

In order for culture to be able to impact positively on sustainable development, there would be the need for people to refrain from individualism and become more patriotic in their way of thinking and acting. In other words, the communalism of the people of a nation can go a long way to promote their development, from a generic point of view.

Culture, knowledge systems and sustainable development

Taking into account the possibility of culture as a resource for sustainable rural development, it is important to consider the extent to which local people are aware of and ready to protect their own cultural beliefs and practices as a useful resource and an ally to modernity. For this reason, if the cumulative effect of indigenous knowledge systems is present in the national development discourse, it would define both the concept of development and its direction (Kendie and Ghartey, 2000).

Friedman (1992) argues that local resource patterns are seen through a prism that underscores the critical existence of indigenes to perceive their cosmos to be the most important facilitator for communal unity. This unfolds and unleashes their creativity. Thus "development is lived by people: where they are, where they live, work, love, play -and die". The primary community is the immediate space open to most people. It is in the village... that personal and societal development first and best interacts' (IFDA, 1980:12).

Sustainable development can be seen from two converging perspectives: the "increasing recognition of the importance of resource conservation [the

developmentalist school of thought] and the awareness that without equitable economic growth, preservation would be difficult to attain – [argued by the environmentalist]. From this worldview, it is the synthesis of such opinions that “now make it possible to concentrate attention on finding ways to make development more sustainable” (Kendie and Ghartey, 2000:62). It therefore becomes imperative to promote awareness on culture, which fundamentally constitutes an embodiment of traditional rules and regulations that depict local resource use.

Over time, culture charts a trend and a critical role in sustainable development such that the boundary between culture and development becomes increasingly blurred. Miller notes in a foreword to Kendie and Guri (2004) that the contemporary notion of a clear demarcation between the concept of culture and development and, perceiving culture as “good” only when it appeals to needs of tourism –is becoming increasingly obsolete.

This shift in worldview results from the fact that most local people are now in a steady mutual advancement process that encourages an interface of culture and local development. This paradigm shift also attracts a universal mindset which gives rise to the “development from within; that is development that has culture as its basis” (Kendie & Guri, 2004:1; Awedoba, 2002:14) and enables a convergence of indigenous wisdom and external Western Knowledge Systems into a functionally adaptable mechanism ethnically suited to individual community needs and contingencies.

In more recent times, many of the socio-cultural groups, such as *Asafo* Groups described "as a sort of 'fire brigade'-always ready to be called upon in cases of emergencies," to play the role of "search and rescue" (Kendie and Guri, 2004: 2) have their roles relegated to the fire service men and the police; they are only functional during funerals and festivals as a symbolic group. Such groups could be transformed into communal units which pursue development activities to ensure sustainable growth in the communities. Kendie and Guri posit that the survival of these Ghanaian societies has been possible largely due to the existence and the pre-eminent role of traditional knowledge systems and institutions. Some times, certain countries and institutions, particularly non-governmental organizations (NGOs), have tilted toward a notable neglect of these traditional institutions. Often, the result of such neglect has resulted in disregard for invaluable traditional beliefs and local practices that could serve as a rallying bastion for sustainable development from an indigenous context (Kendie and Guri, 2004).

According to Kendie and Guri (2004: 2), cultural institutions are the mainstay for orderliness in a community, often evolving around "norms, values, beliefs and [a] cosmo-vision that guide[s] social interaction". They proffer that the existence of credible leadership structures enables members of the community to develop the ability to comply with the tenets of culture. These institutions are also very much involved in encouraging the society to attain improved socio-economic levels. When these cultural institutions are well structured, they are able to "adopt various methods of reflection to confront problems and to demand

resources and services from state institutions,” to forge ahead with the development processes of their communities and, to guarantee good governance and poverty reduction in a sustainable manner (Kendie and Guri, 2004: 7-8).

The development of cultural institutions must be seen against a backdrop that is entrenched in the culture of that particular group of people to ensure a particular way of life for subsequent generations. From this standpoint, culture and traditional knowledge systems are seen from one holistic – not a disjointed – complex of distinctive spiritual, material, intellectual and emotional features that characterize a society or social group. It includes the art and letters, the modes of life, the fundamental rights of the people, value systems, traditions and their beliefs” (Kendie and Guri, 2004: 10). Ensuring a healthy way of life in a sustainable manner through the application of the basic rubrics of the cultural institutions facilitates the nurturing of alternative development processes. This is what Korten (1990) cited in Kendie and Guri, 2004: 9) defines as “a process by which the people of a society develop themselves and their knowledge systems in ways that enhance their ability to mobilize and manage available resource to produce . . . sustainable and justly distributed improvements in the quality of life consistent with their aspirations.

The different components of culture are critical to its sustainable development because, they constitute the driving force of traditional knowledge systems in many African cultures including the diverse cultural groups in Ghana. From this development paradigm, Kendie and Guri argue that “the non-recognition of traditional institutions as capable organizations in the management

of projects is the base of the problems with the sustainability of rural development projects” (Kendie and Guri, 2004: 11).

Additionally, the local culture invested a deal of value on traditional folkloric communication channels manifested in “stories, songs, proverbs, praise-poetry and epics”. This reservoir of rich communication resource, it is argued, offers the most direct path to sensitive topics and personal issues relating to people’s values, attitudes and motivations and can successfully promote behaviour change, at both individual and social levels (Clemmons and Coulibaly, 1999: 160).

In terms of the sustainable environmental development, indigenous knowledge has often evolved around procedures and rules of natural resource use that [ensure] the sustainable utilization of resources. The strict traditional methodical rubrics which governed rural lifestyle and, the intimate “environmental knowledge” upon which such methodologies were built, are all gradually spiralling into oblivion as individual inclinations and appetite for western lifestyle replace the conventional communal control and identity in the name of civilization (Kendie and Ghartey, 2000:63).

Traditional knowledge systems as part of development

It has been advocated by a school of thought that traditional knowledge systems in all their cultural richness, technical, social and spiritual dimensions should be seen as the vanguard for development (Haverkort et al, 2003).

According to Haverkort et al. (2003:10), "the historical roots determine the cultural identity, and play a crucial role in the choice of development options of rural communities today". This observation highlights the traditional knowledge systems as a system that wields invaluable place in communal and national development. It is in this view that the need to harness the knowledge systems in the culture of a community has become even more existentially imperative. This equally emphasizes the importance of the various subsets within the holistic cultural framework. Within this subculture, the religious practices of traditional societies encompass a number of beliefs and practices. Among others, these beliefs and practices incorporate a belief in multiple gods, the belief that nature is populated by spirits and gods with whom one can communicate, as well as eliciting spiritual guidance and lessons for life (Haverkort et al., 2003:12). One's association with any of these gods, it is argued, builds an identity in the individual.

It is also believed, among indigenous cultures, that 'animals, trees, stones, rivers, mountains, heavenly bodies and the earth' are possessed and inhabited by spirits. These spirits communicate, can be pleased or offended, and therefore, can hurt or help humans. People consider themselves dependent on these forces, which they can worship and, make sacrifices to support (Haverkort et al., 2003). Most clans also create a metaphysical connection between themselves and these spirits and inanimate objects known as totems. Totems are perceived and revered as ancestral symbols of clans and the relationship between the individual clans

and their totems often give rise to certain taboos vis-à-vis daily social experiences such as consuming or hunting of these totems.

Haverkort et al (2003: 14) further argue that “animistic and totemic practices are often combined with ancestral worship and sacrifices to the natural gods and spirits. Traditional political and spiritual leaders as well as spiritual mediums play important roles in the daily life of the communities and households. Ethnic affiliation and links with the land, where family and ancestral spirits reside, are considered important.”

Traditional worldview

Among the indigenous worldview of most African communities there is a strong belief in the existence of a deeper cosmic reality, very distinct from the one in which we live. It is from this metaphysical worldview that rewards and punishments are derived and subsequently administered to deserving members of the community for social behaviours deemed to be either exemplary or atypical of the norm (Haverkort et al., 2003: 12). Inherent in indigenous traditional knowledge systems is an enormously perceived interconnectivity interface between the supernatural world and the living world, also known as the natural and the human worlds. With this traditional conceptual understanding as a backdrop, a tripod is set to support traditional indigenous knowledge systems, rooted in the notion that there is a conceptual framework that guides one's understanding of the world. The living world is made up of three worlds: the human world, the natural world and the spiritual world (Haverkort et al., 2003:

31; Tabuti, 2006: 1 - 4). This conception of the world is widely shared among the Bantu in Uganda and, indeed, across many cultures in Africa.

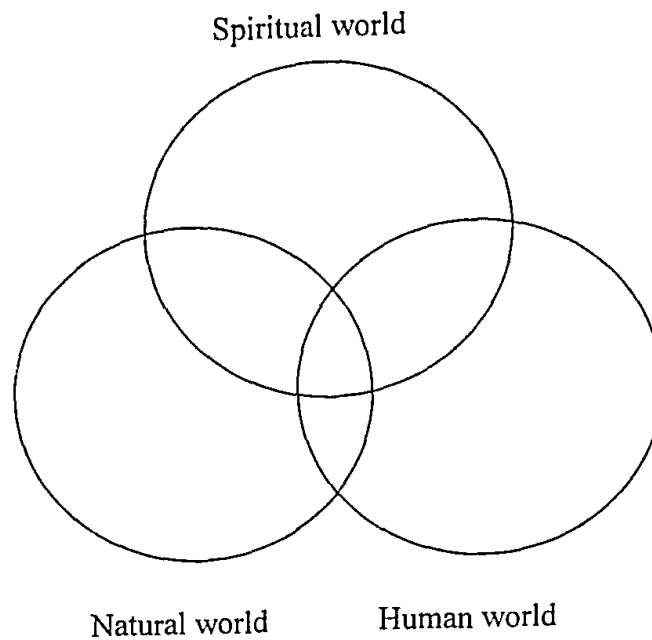


Figure 1: The Bantus concept of the world

Source: Haverkort, Van't Hooft and Hiemstra, (2003: 31); Tabuti, (2006:1 - 4).

Spiritual world

The spiritual world consists of the various unseen spirits, ancestral spirits and gods who often have varied functions and tasks.

Human world

The human world involves the gamut of social activities and relations including communal life, family relations, ethnic groups, traditional leadership and social organizations.

Natural world

The natural world, which from an indigenous worldview, can be described as foreign, secular, and mundane practices and values encapsulated in diverse forms of nature, including agriculture and natural endowments.

Haverkort et al (2003) argue that the boundary between these seemingly distinct dichotomies tends to be blurred in reality, such that certain natural places are considered sacred, as sites where spiritual forces can communicate with humans through animals and habitats. These together form the worldview of the Cosmo vision that describes the role of the supernatural powers, the perceived relationship between the human and nature and the way natural processes are explained. In all the four communities within the geographical scope of the study, there exist sacred grooves which serve as final resting place for the ancestors and as such have, by traditional belief, become sacred forest reserves. Any form of physical development or activity carried out within the confines of these sacred landmarks is subsequently prohibited. From this worldview, any agricultural or sustainable development projects in the communities are designed and implemented within the limits of these geo-cultural limitations.

Indigenous belief systems have enormous impact on the ability of indigenous communities to harness natural resources for sustainable development. In recent times, there has been a reawakening among local communities to draw on their cultural values, capacities, and opportunities within their environment "to improve their livelihoods in a systematic way based on their local resources" (Haverkort et al, 2003: 31).

The analysis of this worldview identifies six types of resources which can be harnessed for development namely: natural resources, human resources, humanly produced resources, economic-financial resource, social resource, and cultural resource. Haverkort et al (2003) identify the following resources available for sustainable development:

“Natural resources: land ecosystems plants and animals. Human resources: knowledge and skills, local concepts, ways of teaching and learning, and experimenting. Secondary human resources (humanly produced resources): building, infrastructure and equipment. Economic-financial resources: markets, incomes, ownerships, price relations and credit. Social resources: family, ethnic organizations, social institutions and leadership. Cultural resources: beliefs, norms, values, festivals and rituals, art, language, lifestyle.”

Local people can chart their own community-based paths to efficiently harness and appropriate this gamut of resources to their own benefit to ensure development in a sustainable manner in the communities. As a necessary imperative towards sustainable community-specific development needs, Haverkort et al (2003: 31) posit that “a balanced development process includes all these types of local resources”.

Basics of Ubuntu viewpoint and national development in SD

According to Tabuti, (2006) Ubuntu in the Bantu concept means an inner feeling of a person which involves; for the Bantu, a human being been regarded as one with conscience and tender ‘heart’ and, hence, behaving rationally as a free

moral being. The person regarded to possess 'obuntu' is that generous person and the one who cares for others with a rational sense of belonging to a society.

From a literal standpoint, it is believed among the Bantus and other African ethnicities with similar cosmo-vision, that any person who is perceived to possess the qualities of 'obuntu' is morally upright, intelligent and has the ethical turpitude required for making independent decisions. Impliedly, this also means that such a person has the conscience and the goodwill to do "good" in terms of social behavior and relationship. Such an endowment of wisdom and social abilities, it is believed, invariably translate into one's worldview of the ecosystem. Such a worldview also translates into a sense of responsibility to the environment and, therefore, adherence to all customary norms that guide the uses, conservation and preservation of natural resources.

The strategies of colonization

According to Haverkort et al, (2003: 18-19) "the black societies of Africa...were considered inferior." Consequently, the occupying countries formulated and implemented strategic geopolitical policies designed to subjugate indigenous African peoples and also destroy their cultural identity. In this strategic framework:

- The colonizing countries put together economic and military power with a tough connection to religion. The presence of these colonizing countries alone suppressed the culture of the indigenous people.

- The indigenous cultures and religions of the colonized peoples were declared inferior, and their belief systems branded “superstitious.”
- This new religion of the colonizing countries was then presented as a means of liberalization for the colonized people and as a benefit to them, the acceptance of which would then justify their domination.
- The occupying powers forged expedient relationships with indigenous political leaders and in the process forced them to accept their legal systems as the new and acceptable bastion of morality and values. Conversely, unrepentant and unyielding indigenous traditional leaders were declared demonic while female clairvoyants were classified as witches.

During the eighteenth and nineteenth centuries, most of the colonial rules often included laws that forbade the practice of witchcraft. Haverkort et al (2003) note that most of the original religions, sacred places and places of worship were destroyed and replaced with Christian churches, often in the exact physical locations where these traditional sacred places stood. “For example, sacred shrines and groves in Africa were rejected and were possibly demolished by the colonial occupants” Haverkort et al (2003: 19).

“Traditional religious practices deemed to be not-too radicalizing from the Christian perspective were given new labels and incrementally absorbed into Christianity generally through proslytization. Christianity was absorbed into the traditional belief systems of the local people as a mechanism of coexistence. As a result of this foreign invasion of indigenous faith system “the traditional religious

practices in Africa have been suppressed" (Haverkort et al, 2003:19) and have been steadily subsumed by the orthodoxy of formal western churches.

Unarguably, the effects of these strategies of colonialism are still pervasive in local communities, manifest, for example, in the enormous difficulty that the local bourgeoisie exhibits when confronted with scenarios requiring the observance of customary rites such as cultural competence of traditional knowledge and wisdom in indigenous settings. Haverkort et al (2003) observe that such display of cultural dysfunction is attributable, in part, to the fact that many traditional practices, leaders and institutions continue to operate in secrecy.

Impact of colonialism on culture and development

Haverkort et al (2003: 21), argue that "after independence, the peripheral position of the countries was maintained. The colonial style and submission of the native population was continued and education was modelled on the former imperial system. Colonialism has weakened the African capacity in experimentation, problem solving and the creation of utilitarian objects and processes. We have come to inherit an educational legacy more skewed towards the multiplication of foreign values and an alarming degree of isolationism from indigenous values and cultural identity which has impacted significantly on the development of the African scientific and technological capacity.

Owing to this lack of identity on the part of local people, and the divorce from their cultural values and belief system, the contemporary indigenous society is increasingly embracing greed, individualism and materialism. Some of the

drawbacks of this "materialistic-mechanistic worldview are now clearly visible, such as the increasing poor-rich divide, environmental pollution, loss of biodiversity, and the breakdown of social structures in rural areas throughout the world" (Haverkort et al 2003: 22). To this end, there is an increasing need for a kind of development paradigm perceived through a more sustainable and holistic lens.

Definition of globalization

Globalization is the contemporary process of increased global communication, application of internationally accepted technologies, and the uniformity of commercial products and values (Haverkort et al, 2003:23).

Among many advantages, globalization offers opportunities for people to link across the globe, to exchange information and goods. It provides the opportunity to link production systems in a complementary way and allows production to take place in those areas with a comparative advantage. In the present global information system, people can now inform and learn from each other, assist each other in decision-making, or join forces in negotiation and lobbying. Globalization contributes to fast and intensive communication and greater knowledge about different societies, cultures and ecosystems in the world (Haverkort et al, 2003:23).

Globalization, nonetheless, also has come with negative repercussions. It contributes significantly to the fragility of the ecosystem. The recognition that indigenous knowledge and traditional cultures may contain key characteristics for

meeting the global challenge of re-establishing biological and cultural sustainability therefore is crucial. Current trends aimed at diversification of biological and socio-economic systems, and at revitalization of cultures, can be understood as a direct reaction to the challenges that globalization poses particularly to indigenous communities and struggling national economies (Haverkort et al, 2003:23).

Negative effects of globalization on culture and sustainable development

Notwithstanding the fact that globalization has contributed positively to global economic development the gains are not equitably distributed around the world. There still exists a gaping hole in globalization vis-à-vis the capacity of countries to access its advantages equally. Haverkort et al (2003), posit that globalization, along with the acute competition, threatens to put several developing nations on a slippery slope to economic stagnation and ostracism and a potential for resurgence in mass poverty particularly among ethnic minorities. Indeed, globalization has forced many to migrate and "several traditional life forms are driven into the background. Economic growth indicators have pointed to an over-reliance on certain conditions which include resources in economically stagnant but resource-rich countries. Consequently, a lot of stress is exerted on available natural and cultural resources such as global water, vegetation, biodiversity and climate. It is also "accompanied by diminishing cultural diversity".

“Many traditional societies break up and other customs, cultural expressions and languages vanish. With the excessive interference by foreign values and technologies associated with globalization, over half of the 6000 languages spoken are unlikely to survive the 21st century” if new dynamic approaches are not introduced into the global market access equilibrium Haverkort et al (2003:24). Such a paradigmatic shift must be able to strike a mutual balance between cultural values of different demographics in relation to which aspects of modernization and globalization can better serve local realities and needs. Haverkort et al note that:

“Under the influence of the mass media and education, a general westernization of the tastes and consumption patterns is taking place. Urban consumers in developing countries increasingly consume western [fast] foods and drink more than their traditional products. At the same time, local producers find it difficult to access national consumer super-markets due to different quality standards and supply systems” (Haverkort et al, 2003).

Similarly, other indigenous ways of life are also affected. Such processes are taking place in relation to dress, craft and architecture, as well as traditional human and animal health practices. The economic opportunities of these local producers are being taken over by international markets, resulting in further poverty as well as loss of traditional skill and experience. In these processes, traditional leadership is losing its control and impact on local management of natural resources; leading to further deterioration of local ecosystems and the income that can be derived from them (Haverkort et al, 2003).

Globalization makes it possible and easy for a greater portion of the dominant culture to be hidden or take place in the closet. Thus, most traditional societies are overshadowed by the foreign cultures. A critical look at that hidden culture, which forms the background of the traditional values and leadership, inform the decision of rural people today. "The representatives of the dominant culture are often inclined to believe that these traditional values and beliefs that exist between generations, and between family members with formal and informal practices largely belong to the past" Haverkort et al (2003: 30). And in contemporary times, eligibility for traditional chieftaincy positions – in addition to the customary inheritance requirements – is becoming increasingly predicated on the prospective candidate's educational standing, in other words, one's "foreignness".

There is also the problem of generational chasm that exists in terms of a polarity in worldview and social dynamic. Haverkort et al (2003) assert that this gap is often expressed in terms of education where "the young and the formally educated . . . are often inclined towards the western-based knowledge system - contradiction".

Haverkort et al (2003) also note that "the problem associated with the introduction of modern agricultural practices such as declining soil fertility, health hazards, declining producer price, increasing input prices and reduced income may explain the increasing tendency to revive traditional knowledge and practices. "Revivalism may be expressed as a genuine belief that parts of the past may be important to develop the cultural identity and local economy, possibly in

combination with certain elements and practices from other origins". Such a hybrid system that extracts the best of traditional institutional values and adapts the most locally appropriate foreign values will, to a greater degree, determine the suitability of environmental protection and agricultural endeavours in rural communities.

The concept of development in sustainability

According to Arendonk and Arendonk-Marquez (1988), development is primarily about culture. But progressively, more societies now have the daunting task of dealing with and warding off dominant global culture – primarily western indigenous knowledge systems (WKS) - built around rationalism, individualism, secularism and utilitarianism. Consequently, the virtues of transcendence and communality, which were the mainstay of the traditional way of life, are being increasingly eroded by this global culture (Kendie and Guri, 2004:11).

Another school of thought posits that economic objectives constitute the nexus of the concept of development. Following this construct, Awendoba asserts that "development is certainly economic" (Awendoba, 2002:13). However, there is a consensual truism that material and non-material resources alike are necessary for the development of the local people. Therefore, the local people depend often on nature for their economic improvement which at times leads to violation of taboos. There is the need for authorities to consider these economic needs of the people, as part of the development plan. Awendoba (2002) sees production, circulation, and utilization of goods and services as necessary elements of

development considerations that hinge on land, capital, labour, infrastructure, among others, and are therefore essential for the development of a nation. However, he concurs that development, in simple terms, stands for growth and improvement of the human condition. Describing development this way invalidates the normative definition which has the tendency to overemphasize economic indicators as the only crucial variables for assessing development.

Awendoba (2002) further argues that any activity that contributes to the enhancement of the differences in communal life and individuals can be viewed as coming under the purview of development and more exactly makes it multi-dimensional and holistic. He acknowledges, for example, the magnitude of political impact on development, law and order, the existence of peace and the reasons for the exercise of civil liberties as equally important to the multi-dimensional and holistic development of communities.

Furthermore, Awendoba (2002) posits that religion and morality which constitute the central pillars of culture are as equally important just as technology and science are to development. He proffers that, if one is not able to reconcile to his or her god, that individual lives in fear of the hereafter and as a result, goes about his or her worldly duties deficient of peace of mind and heart. For this reason, he argues that the state must not be seen as interfering in people's religious beliefs and cultural values. Here, Awendoba (2002) argues that the philosophy of indigenous people play a crucial role in community development. And, the beliefs of these indigenes emanate from their cultural institutions whose primary goal is to protect the life, property, relationships, and the environment.

Development takes into account many other aspects of life. These include the perceived broader cultural goals and objectives including the arts and aesthetics as well as environment and health issues. The enhancement of the human condition, which is in other words development, also denotes that the means of self-expression through the people's own chosen medium are not denied (Awendoba, 2002).

In order to create an enabling environment for communities and people to make choices and informed decisions that will lead to development and the preservation of cultural beliefs and practices which underpin development activities such as agriculture, education and information, indigenous way of life becomes equally fundamental to progress. Awendoba (2002) asserts that such progress is not contingent exclusively on formal education; informal education is also an indispensable component. It is through informal education such as oral tradition, proverbs, myths and drum language, that traditional authorities inculcated and disseminated ideas and thoughts that yield behaviour change. From this standpoint, argues that "behaviours can be changed through education and communication" (Awendoba, 2002:13). In contemporary times, people would be better served to make informed choices and decisions if national development policies, while rooted in modern global governance, would equally capitalize on the treasure trove of cultural values to tap into the rich repository of traditional knowledge systems for development that is in sync with the cultural and social values and local needs.

Development is essential to all countries but particularly critical for most African countries for national growth. Nevertheless Awendoba (2002) argues that the kind of development that Africa needs is “not just any development but rather a particular kind that is tailored to suit African requirements and circumstances and meets people’s aspirations” (Awendoba, 2002: 14). This brings to question the convergence of culture and development. The literature shows that the development model with the greatest influence considers the skills and practices of a people, their physical, social, spiritual and general lifestyles. Such a model tends to be culture-specific. Beliefs, norms, values, religion, rituals and festivals, taboos, family, kinship, funeral rites and traditional forms of political authority, when appropriately harnessed in the development process, can significantly promote socioeconomic development in various communities in a sustainable manner by proactively employing socio-cultural beliefs and practices.

Government policies and environmental sustainability of agricultural forms

In a statement made in 2004, the Minister of Lands and Forestry, Professor Dominic Fobih confirmed a troubling trend when he disclosed that “there are only 1.6 million hectares of forest left in the entire country out of an original 8.6 million hectares.” The minister reiterated that not only had this phenomenon impacted on the sustainability of the country’s forests but that ‘it had also had major impacts on other functions of the forests, including water supply, soil fertility and wildlife’ (National Coalition of Civil Society Groups against Mining in Ghana’s Forest Reserves (NCCSG: 2004: 4).

Civil society organizations and actors against environmentally unsustainable activities in Ghana's remaining forest reserves contend that "prosperity built on despoliation of the natural environment is no prosperity at all, only a temporary reprieve from future disaster." The decision by government to allow mining in the *Atiwa* forests for instance, has been seen as irresponsible; an abdication of leadership and a disregard for culture which undermines not only the "significant role that forest reserves play but also contradicts the government's own policy on natural resource management and conservation" (NCCSG: 2004: 4). Ghana's Forest and Wildlife Policy enacted in 1994 emphasizes the 'conservation and sustainable development of the nation's forest and wildlife resources for the maintenance of environmental quality and perpetual flow of optimum benefit to all segments of society'.

Indeed, from a bio-environmentalist-social green worldview, it is argued that unsustainable activities such as timber logging, mining and unmonitored encroachment on forest reserves for farming practices "will aggravate the already alarming rate of forest degradation in the country and wreak havoc on fresh water systems and watersheds, as well as the entire ecosystem and biodiversity" (Africa Action, 2003: 4). Additionally, such activities will render agriculture and agriforms non-lucrative and less beneficial to sustainable development.

Lax government policies have caused most traditional leaders to be influenced by often hyped expectations for social development made by transnational corporations mostly engaged in the extractive industry in Ghana and many resource-rich poor countries. A school of thought asserts, therefore, that our

"spiritual leaders were influenced not only in religious matters, but also in governance, justice, education, health and agriculture. These practices directly referred to relationships between humankind, nature and the 'spiritual forces'" (Haverkort et al. 2003: 12). For example, along with Newmont, other transnational mining companies – Chirano Goldmines Limited, Satellite Goldfields Limited, Nexsun/AGC, and Birim/AGC, among others – have pressured the government over time to open up forest reserves for mining (Obeng-Baah, 2006: 13). Such demands violate the International Labor Organization's (ILO) declaration under Convention 169 which states that "indigenous peoples must be allowed to independently decide how to manage their natural resources without outside interference" (Oxfam America, 2003: 19).

Ghana like "many developing countries have regulations or policies obliging foreign investors to follow certain performance requirements . . . needed foremost in the case of trans-national corporations, which have neither stake nor interest in the well being of local communities" (Rivera, 2003: 30). This notwithstanding, Lelis Rivera, Director of the Centre for Development of Amazon Indigenous Peoples in Peru, rightly observes that in many of these poor, resource-rich countries, 'capital is above any other interest and the government prefers to maintain clear rules of the game for foreign investors over the environment . . . and other interests'.

As offshoots of environmental pollution and the unlawful activities in the rural communities, privation and liberalization have placed health services and agricultural inputs farther away from the reach of rural communities. For this

reason, the number of young people migrating away from rural areas in search of greener pastures is now on the increase. Such developments, according to Haverkot et al, "...strain local economies as well as the social and cultural inheritance of the local communities" (Haverkort et al, 2003:29).

Conceptual framework

This study attempts to answer the hypothesis that traditional knowledge systems (TKS), anchored in socio-cultural beliefs and practices are the main variables that propel sustainable development in Akyem Awisa and its environs. The strength of the socio-cultural beliefs and practices in existence in present times are progressively becoming more limited in power to humans. This perimeter has come about as a result of the effect of some government policies, modernization and foreign influence, information issues as well as economic constraints.

Studies show that men and women in recent times are compelled to "over-exploit nature" (Kendie and Ghartey, 2000: 60); for their very individualistic and materialistic gratifications, in order to catch up with modernity. The appetite for modern goods and new technologies has become indeed very aggressive. This evolution has been characterized by an incremental neglect and abandonment of the huge reservoir of traditional knowledge base that indigenous societies possess. For instance, many traditional institutions that once showcased the traditional indigenous knowledge are virtually extinct. In this regard, socio-cultural beliefs and practices are accordingly ignored and emerging foreign values welcomed.

The reasons for such a development in recent times could be primarily attributed to the loss of power in the traditional institutions that once espoused and enforced these socio-cultural beliefs and practices. With their virtual demise, a school of thought has argued that the challenges encountered in accessing information on these socio-cultural institutions and the knowledge base to assess and analyze their complementarities to development could also explain the prevailing apathy. It is therefore argued that humanity has rather changed instead of culture Omari, (1990).

In view of the fact that traditional knowledge systems play an important role in the social, cultural and political life of communities, they are equally major drivers for communal and national sustainable development initiatives. *Figure 1* illustrates the correlation and symbiotic relationship between cultural values and development. The original model was adapted from Bediako (2003: 5) and has been modified, for the purpose of this research, by adjusting the variables on the left side of the framework (government policies, foreign influence - modernization, information issues and socio-economic factors) as factors that militate against TKS of culture for development and the right variables (beliefs, values and norms; traditional religion, taboos, rites and rituals -festivals; family, kinship and funerals; political structure and authority) as factors that influence TKS of culture in development. In addition, a category for TKS of culture was introduced as the main variable that emphasizes the centrality of culture as the most important variable for achieving the goals of sustainable development.

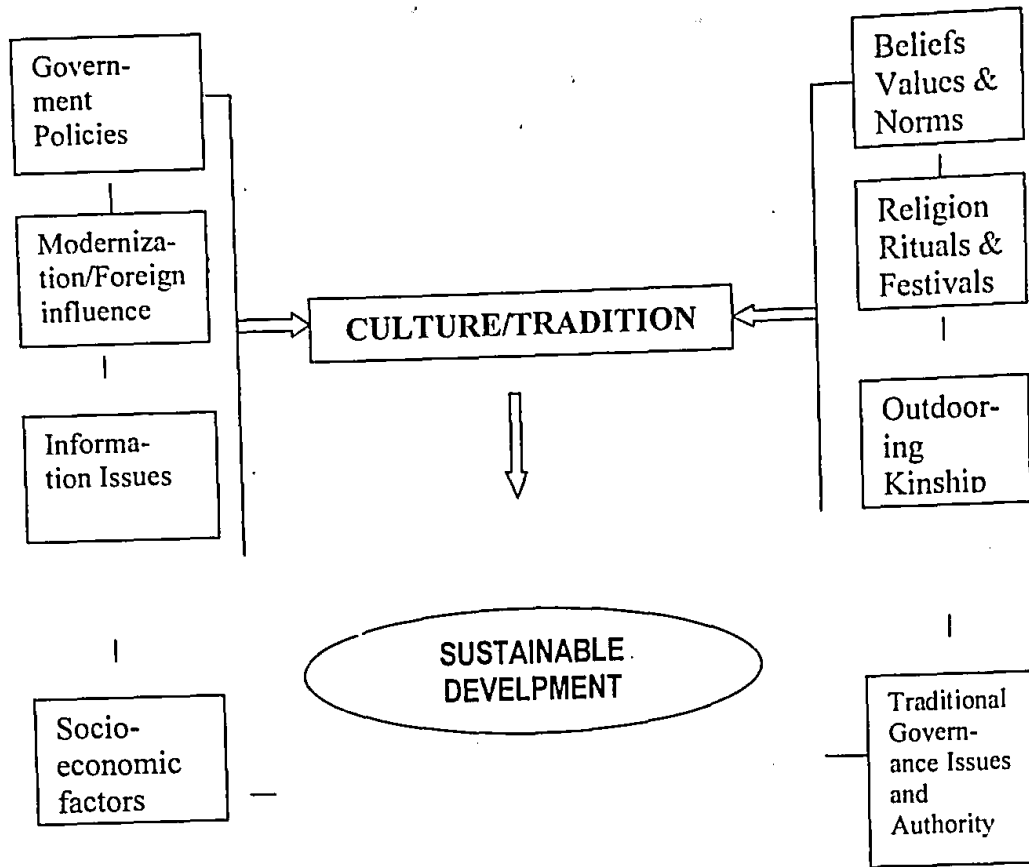


Figure 2: Conceptual frame work

Source: Adapted from Bediako (2003)

CHAPTER THREE

METHODOLOGY

Introduction

This chapter deals with the presentation of the procedures and techniques used to collect data for the study. It outlines the study area, population, samples and sampling procedures, research design and the procedures for data collection.

Study area

The area selected for the study is Akyem Awisa. Awisa is in the Birim South District, one of fifteen districts in the Eastern Region of Ghana. The district is located in the southeastern part of the region. It “shares borders with Birim North and Kwaebibirem Districts to the north, Adansi East and Assin Districts to the west, Asikuma-Odoben-Brakwa and Agona Districts to the south and West Akyem District to the east. Akyem Oda is the district capital.” (ghanaweb.com). The District is mostly undulating and hilly, and lies within the semi-deciduous forest zone. The district boasts of the economically and ecologically important Birim River – along with its many tributaries – which in some locations has an elevation of approximately 61 meters above sea level (ghanaweb.com).

The district has a land mass of 1,090 square kilometers. The population of the Birim South District, according to the 2000 Census stands at 179,349 with a

male population of 86,904 and a female population of 92,445, which translates into 48.46% and 51.54% respectively (2000 Population and Housing Census Gazetteer – Eastern Region, December 2003).

Some ecological and demographic traits of Birim South District and the study area

The district lies within the wet semi-equatorial climatic zone which experiences substantial perennial rainfall and therefore classified as part of the semi-deciduous rainforest belt. The vegetation is mainly composed of tall trees with evergreen undergrowth and has an abundance of economically valuable timber stock including Wawa, Kyenkyen, Odum and Onyina. There are nine forest reserves covering a total land area of about 200.14 square kilometers, and constituting about 18.8 percent of the total land area of the district (www.ghanadistricts.com)

Traditionally the Birim South District is part of the Okyeman Traditional Council and it is predominantly made up of the Kotoku and the Bosome traditional States of the three main wings of the Okyeman kingdom which consists of the Abuakwa, Kotoku and Bosome States. The traditional political and administrative capitals of the three are Kyebi, Akyem Oda, and Akyem Bosome respectively.

The four communities which fall within the study area – Akyem Awisa, Apaaso, Bogyesango and Akyem Etuntumerem – are all situated within the Akyem Kotoku State. With the exception of Akyem Etuntumerem which lies

southwest of Akyem Awisa and is located approximately 4km away from Akyem Awisa, the three other communities have geographically converged into one single community and therefore commonly referred to by the local inhabitants as Akyem Awisa.

However, unlike Apaaso which has been without a chief for some years now pays allegiance and other economic royalties to the Awisa chief. Bogyesango, on the other hand, has its own chief even though its geographical location puts it in seamless proximity to the Akyem Awisa Township.

All the four communities have at least a basic school and a number of Christian organizations. As a result of the activities of the numerous Christian groups, most of the natives and settlers do not pay the desired attention to the cultural practices which have guided the way of life of these communities for ages. The language spoken in the study area is Twi. Specifically, it is a dialectical extraction of Twi with linguistic proximity to Akwapim. This is mainly due to the fact that the early introduction of formal education by the Basel missionaries was spearheaded by the Akwapims' who became the early pioneers in the ministry and teaching.

With regard to the Islamic religion, the only mosque in the study area is situated in Akyem Swedru, according to traditional land demarcation, even though geographically it is close to Akyem Awisa in relative terms. Even though the geo-positioning of religious facilities is not a major theme in the study, it is important mentioning them because of the impact Islamic doctrines have had on cultural beliefs and practices within the communities under study.

As noted earlier, the vegetative cover of the study area is largely characterized by tall trees with evergreen undergrowth and has an abundance of economically viable trees such as Wawa, Kyenkyen, Odum and Onyina. However, the major challenges facing the populations in the study area are farming practices such as slash and burn, and the attitudinal indifference of inhabitants toward the use of natural resources available to them. Unarguably, this apathy is a trend that comes with a troubling rate of environmental degradation such as unregulated poaching into the few remaining tracts of forest by timber companies and chainsaw operators as well as the destruction of water bodies and sources. Due to such wanton logging activities – both legal and unauthorized – the remaining pristine forests in the area are being depleted at an alarming rate. This practice is also threatening agricultural practice in the area. There are four main rivers in all the four communities: Kosiko, Kɔkɔ, Akyere, and Kyekyerepoa. While most of the local population are heavily dependent on these sources of water for both agricultural and domestic use, all the communities also have access, albeit limited, to pipe-borne water.

In view of the fact that the district is within the semi-equatorial belt it enjoys two major rainy seasons each year. On the average, temperature remains high throughout the year often with a mean annual temperature of 28° C. The main rainy season generally comes between April and July and the minor season between September and mid-November. The climate of the area allows for four different seasons: December - April is characterized by a dry Harmattan weather;

May – July is the major rainy season; July – August is the monsoon draught period; and finally September – November is the lean rainy season.

On the whole, the research area abounds in fertile land and favourable climatic conditions that promote the cultivation of several crops. The people in the area are predominantly farmers who cultivate a variety of crops, including cocoa, oil palm, citrus, sugar-cane, maize, cassava, plantain, cocoyam, yam and many other subsistence crops. Most of the women are engaged in small-scale kenkey and palm oil extraction. Men are generally involved in the *akpeteshie* (local liquor) distilling industry

The population

The population of the towns selected in the study area according to the 2000 population census was: Akyem Awisa/Bogyesango - 4640, Akyem Apaaso - 650 and Akyem Etuntumeremu - 873. It is from these populations that the samples were selected.

Sample and sampling procedure

For the purpose of the study, four towns were selected for data collection. The towns are Akyem Awisa/Bogyesango, Apaaso and Etuntumeremu; they were purposively chosen to ensure that the feedback from respondents would be a true reflection of the situation on the ground and also offer some qualitative insights applicable to the entire Kotoku Traditional Area. There are seven towns in the

Kotoku Traditional Area and the communities in the sample constitute approximately 60% of the total population.

Description of selected communities

Etuntumeremu became a town when the early settlers fled a raging war in the Ashanti kingdom to seek refuge from the first chief of Akyem Awisa, Nana Atta Karikari I. In the tradition of his usual generosity, the settlers of Etuntumeremu were allowed to become a part of the Akyem Awisa social fabric and could therefore pay homage to the Chief and the traditional stool of the chiefdom during festivals.

The people of Etuntumeremu are predominantly farmers who work mostly on palm plantations, cocoa and other foodstuffs common to the Southern Ghana. In addition, the men also engage in the distillation of alcohol (Akpeteshi) from the palm wine they tap from oil palm trees. The women also engage in the preparation of palm oil and "fanti" kenkey for daily sustenance. Etuntumeremu has a basic elementary school and a Junior Secondary School. It also has access to basic social amenities such as like electricity and boreholes which serve as sources for potable water. There are a few evangelical churches and an orthodox church in the community.

Apaaso enjoys the status of a town even though it has always been considered a part of Akyem Awisa due to its proximity. Like Etuntumeremu, the earlier settlers of Apaaso also sought for refuge from the first chief of Akyem Awisa during the war period known as the Ahwiren-Ashanti war. Apaaso also

has a basic school facility built through a Ghanaian-Swedish partnership. The school is now under the administration of the Salvation Army Church. It is bordered to the north by the Akyem Awisa post office, to the south by a small river, the Christian cemetery and the sacred grove at Akyem Awisa, to the east by the boundary with Akyem Swedru, the capital of the Bosome Traditional Area, and on the west by the entire Akyem Awisa Township. The inhabitants are predominantly farmers and small-scale retailers.

Bogyesango, unlike Apaaso and Etuntumeremu, has always been a sovereign town sharing contiguous borders with Akyem Awisa. It has virtually been subsumed by modern-day Akyem Awisa. It is a very small community within the relatively bigger Akyem Awisa even though it continues to enjoy its independence including ownership of its own ancient sacred grove known as *Edumedum*.

In addition to having their own chief and traditional observance of sacred rites in their communities, the chiefs in these towns also pay homage and allegiance to the Chief of Akyem Awisa. In spite of the early exposure to western-style education and religion, traditional practices constitute an important part of the daily lives of people in the communities selected for the study.

Akyem Awisa which happens to be the largest settlement in the area, and the oldest of the settlements boasts of two basic schools: the Akyem Awisa Presbyterian Boys Boarding School and the Methodist J.S.S. There are also a number of Pentecostal Churches in addition to the Presbyterian and Methodist Churches. There is also a small Catholic congregation. Akyem Awisa is

connected to the national electricity grid, has pipe-borne water and a postal service facility. One river runs through the town and to surrounding forest reserves. The inhabitants are predominantly farmers, traders, small-scale timber entrepreneurs and lower and middle class civil servants.

The sampling procedure

Due to the qualitative nature of the study, key informants and Focus Group Discussions (FGDs) were used. Eighteen key informants were selected using the snowballing methodology –where the first person is spoken to and he or she gives directions to others who are very likely to have some knowledge to provide as a follow up. Some of these people were also very helpful in the organization of the groups for the FGDs. The breakdown of the eighteen key informants in the four communities is as follow: six (6) persons from Akyem Awisa (i.e. four (4) from the Akyem Awisa Township and the remaining two (2) from the Zongo); three (3) persons from Bogyesango; four (4) persons from Apaaso; and another five (5) from Etuntumeremù. The focus groups consisted of chiefs and elders, women's groups, men's groups, Moslem leaders, Christian groups, and youth groups. The ages ranged from eighteen (18) to seventy-five (75) years.

Throughout the communities, twenty FGDs were organized. Eight (8) FGDs were organized at Akyem Awisa, whereas two (2) took place at Bogyesango, Etuntumeremu and Apaaso had four (4) FGDs each. In each group, between eight (8) to twenty (20) members were convened to discuss issues on

agricultural forms and natural resources available in the area as well as their usage and management, their previous and current conditions and to improve sustainable management of these resources and agricultural forms.

The number of key informants and FDGs were arrived at by factoring in the proportion of elderly people who according to the first key informants, are perceived to have witnessed and, indeed, experienced the various phases of the transition from the period when there existed an uninhibited universal adherence to traditional practices as the guiding hand governing their social, political and economic way of life particularly in natural resource use and management.

Data collection

Primary and secondary data collection methods were used to gather data for the study. Primary data was gathered by talking initially to key informants who also played a significant role in the organization of groups in the various towns for FGDs. In addition to the group discussions on pertinent issues with the focus groups, one-on-one interviews were also conducted with key informants. Additionally, secondary data was gathered from documented sources such as books, reports and existing internet-based data and literature.

Data collection instruments

The instruments used were semi-structured questioning guide for key informant interviews and structured questioning guide for FGDs. A radio recorder

was used to record the discussions while a photo camera was used to capture some scenes during focus group discussion sessions.

Interviews and discussions were conducted in Twi which is the common language spoken in the study area. The interview questions included items ranging from demographics to social determinants such as age, occupation and social status. Questions administered to respondents in areas of inquiry included: land acquisition procedures for farming and other uses, activities hampering efficient agricultural practices, outcomes of farming activities vis-à-vis the activities of the traditional leaders formed the basis of inquiry for an informal assessment of the state of farming practices and the forms of agriculture and resource management. Socially accepted as well as shunned practices were also discussed.

These sessions were conducted based on pointed questions such as beliefs, values and taboos guiding land, forest and water resource management. Questions were also asked concerning the impact of the activities of Christian and Islamic organizations on indigenous cultural beliefs and practices.

Data analysis processes

Data from the field and recorded interviews were transcribed and edited. All incomplete responses were considered invalid and excluded from the analysis. The data analysis was conducted using both qualitative and quantitative tools even though research findings drew heavily on qualitative methodology. Responses from key informants as well as focused group discussions were

classified under common issues. Groups that expressed similar ideas were summarized while percentages, based on the sampled communities were calculated from their numbers. Detailed descriptions of how the forms of agriculture used to be like and how they appear now were described using group categories ranging from 1 – 5 on a measurement scale where: 1-Excellent, 2-very good, 3-good, 4-satisfactory, and 5-poor. Findings based on descriptive statistical analysis were used to construct graphs.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

Introduction

The results and discussions are based on data collected through the use of in-depth interviews including focus group discussions and key informant interviews. The findings reflect the information provided by both men and women presented appropriately.

Background issues

Of all the communities, the representation from Akyem Awisa/Bogyesango is the largest because in comparison with other communities, the community is large with many sections such as a Zongo community, which was made part of Akyem Awisa for the purpose of this work.

Age

Age is considered a very important factor in the social strata among traditional Akan communities and was therefore considered a very important unit of analysis in the research. Older people in the communities, who have lived through the years, are believed to have command knowledge and wisdom on both past and present state of affairs in the communities. In addition, communal rules

and regulations are made by them. Usually, the age factor is suggestive of social, cultural and economic responsibilities. The demographics in the study show cohorts traditionally viable and economically active from 45 years to 80 years and an agriculturally/economically viable age group between ages 18 to 65. These age cohorts constitute 47% and 53% respectively in the study sample show that an active age group constituted a critical variable in the interviews and discussions.

In the entire study, 82% were in the working group, a fact which speaks to an active communal participation in agriculture, since the communities are predominantly farming communities. Among the sampled group 40% were females and 60% males.

Religion/Education

Throughout the study area, religion and education are commonplace in the activities of the communities. This is due to the early presence of the Basel missionaries. Religion and education influence their strict adherence to cultural beliefs and practices, as well as the application of the TKS.

The predominant religious groups in the district – in line with the national characteristic– are Christianity and Islam even though there are other minority religions including fetishism and agnostics. The study showed that 72% of the people interviewed were Christians, 19% Muslims, and 9% African Traditional Religion (ATR) observant.

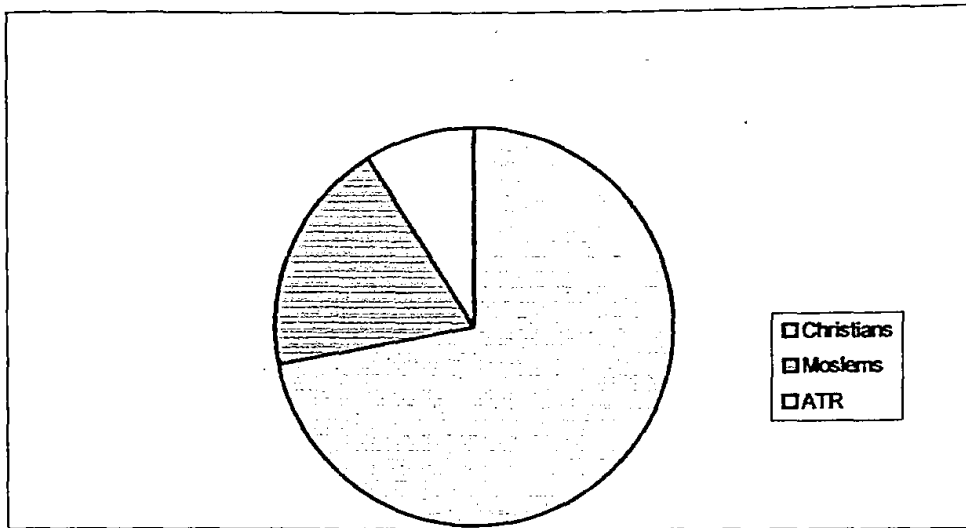


Figure 3: Description of religious denominations among samples

Source: Fieldwork, 2007

Formal education among the communities came quite early to most of the communities in the study area. Thus, level of literacy in the communities is a vital feature that ascertains the level of the loss of credence in the traditional beliefs and practices, as well as passing on the beliefs and practices from generation to generation. Literacy is significantly high among the communities. The effect, therefore, is been that a great number of the sample had had at least basic education.

Formal education came to Akyem Awisa and Bogyesango communities much earlier due to the early arrival of the missionaries in these communities in the 1920s. People from Apaaso and Etuntumeremu who wanted to have formal education had to travel to Akyem Awisa. Due to the missionary nature of schools at the time, the compulsion attached to that kind of education meant that everyone affiliated to the schools including schoolchildren also had to attend church. This

caveat, to a greater extent, accounts for the high percentage of Christians in the area. The mindset of most of the people interviewed for the research often skewed away from the utilitarian as well as the spiritual importance and significance of the beliefs, norms and values of traditional systems of knowledge. Most of them had lost trust and a sense of spiritual kinship with the core traditional beliefs and gradually settling under the presumption that traditional rules and regulations were made to serve the interest of the fetish priests, the chiefs and herbalists” as one of the key informants observed.

Odwira is the most prevalent traditional festival in the study area. The “ODWURA” festival is celebrated in two forms; one by the entire community and the other by the chief and elders only in the palace, on behalf of the community. The choice of type of celebration remains the prerogative of the council of elders. Choosing the latter seldom occurs. It does happen when the chief is indisposed and so cannot sit in state or in public. It was also learnt that, in the past, the traditional priests in the communities played a leading role in the celebration; but, in contemporary times, this role has been taken over by the chief and his council of elders, in conjunction with other attendants of the palace.

By and large, Christian and Islamic groups have become better organized and have a way of life of promoting development in the communities. Besides, these religious groups are in a way related to the communities’ TKS because, although they profess to have no belief in their underlying codes, the values in them are observed. Most of the communal projects are undertaken in strict

adherence to beliefs such as respect for sacred days including 'wukudae' and 'fofie'.

Land use, forest use and the river systems

This section describes the organization and nature of land and land use, the forest and forest use as well as the importance of the river systems, in the communities as practiced over the past several decades. The traditional knowledge base which constitutes the nucleus of such usages and practices are also discussed.

The organization and nature of land

In all the communities included in the study, land, first of all, was perceived as belonging to a higher supreme power known among the Akans as *Onyankopong* or God. This deeply held assumption rhymes through discussions conducted in the course of the research throughout the communities. Another belief is that land has two forms of earthly ownership: the individual (and for that matter, the family) and the chief (considered the social custodian of communal lands). Most of the key informants noted that family land had been historically acquired by their predecessors. As they first settled and identified the land, they cleared the forest they found and left it for their successors, in this case, through matrilineal inheritance and therefore their sisters and their successive offspring. Bequeathing these often vast tracts of land was intended to assure a means through which future lineal generations could realize their sustenance as the only

means survival and daily subsistence was through tilling the land. With this underlying bonding objective, a piece of land became the property for the entire maternal family given that Akans follow a matrilineal inheritance system.

Discussions in the study revealed that as the number of family members occupying the lands increased, the early settlers became the royals and their leader became the chief. By virtue of their early arrival, often were automatically considered owners of land spanning a wide area. The chief and his council of elders ensured that any one who approached them for a piece of land for the purpose of constructing a settlement or farming was given consideration in accordance with traditional custom. Social lands are considered to be the property of the entire community and are entrusted into the care and protection of the chief and his elders to assure feudal protection. The discussions revealed that, this way, the land was protected from encroachment by other settlers and poachers. The chief and elders also saw to the proper demarcation of their boundaries and established rules and regulations by which the land was governed. This was done with the advice and consent of both the chief and fetish priest in that particular settlement or community.

At Etuntumeremu, one of the FDGs explained that whenever a virgin forest was to be cleared, the prospective farmer had to clear just a small area on the first day and pegged with a stick at the initial peripheries. This was to serve as a signal to ward off future interested persons and to prevent conflicts. If even a wild animal such as a snail were found on that small piece of prepared land in the course of the first day of work, it was considered a taboo to collect such as find.

Process of land acquisition

These days, land is acquired by entering into contractual agreements with land owners. Thus, if the land is owned by a family and the prospective farmer is not a member of the family, the *abusuapanin* – head of the matrilineal clan – is consulted with a bottle of schnapps and a token amount of money usually determined on the advice of the family head. This is done for the reason that *ntesuo nko nnante* [which means man does not survive on saliva alone]. The drink is used to perform rites for the ancestors and to ask for their protection as the new occupant enters the land. Unanimous to all the survey groups, the study found that this arrangement was done in the presence of selected family elders in order for them to serve as witnesses to the deed between the two parties – the family and the prospective tenant farmer. In this type of arrangement, most of the key informants indicated that, the *abusuapanin* decides, at his discretion, whether the contractual tenure on the land would be based on *abusa* or *abunu* basis that is on a share ratio of 1:3 or 1:2 in relation to landlord-tenant basis.

Throughout the FGDs, and interviews with key informants, it was again indicated that if a member of the family needed a piece of family land for whatever purpose, that person had to consult the mother (who from the Akan inheritance standpoint, was usually a sister to the *abusuapanin*). Such a consultation is often followed by the release of a portion of the family land to the petitioner. In this case, it was observed that no formal agreement was required. However, as a sign of respect and gratitude, the individual, in accordance with tradition, is obliged to present drinks to the *abusuapanin* through the mother.

These drinks symbolically introduce the new land tenant to the ancestors of the land and ask for protection in all matters relating to the cultivation of the land.

Social lands were also given out through a similar procedure. The prospective farmer or settler on the land approached the chief and his elders with drinks, which in modern times is a bottle of schnapps and some amount of money following the acceptance of which the terms of occupancy are then outlined to the prospective occupant(s).

Traditional beliefs, values and norms about land preparation, harvesting and storage

After fulfilling the initial contractual requirements, it was observed in all the communities the only rituals performed before land released for work was the pouring of libation to the ancestors to ask for their protection throughout work and to allow good yield of the crops. The belief the people have is that, as first occupants of the land, it is, in reverence, imperative that ancestors be acknowledged during such occasions. It is for this reason that the people of Etuntumeremu also believe in the norm that dictates the prohibition of clearing a wide expanse of land and collecting anything edible from the land during the first day of work. The clearing of only a small portion on the first day symbolizes a customary knocking of the doors of ancestors to show respect and to seek spiritual permission. Most of the key informants claimed that "the practice was very necessary and was not evil because showing respect to the ancestors and acknowledging them was good and must be encouraged."

The research findings show that during the preparation of the land for farming, one or two of the very big trees on the land were usually felled to "shake up" the land to loosen it up and make it fertile to sustain crops such as plantain and cocoyam. There is also a belief in an indigenous axiom that '*wodɔ afuo na Onyame ehunu mu a enye yiye.*' Translated, this means that God the Supreme Being has to see your farm to shower His blessings onto it. A few trees are therefore felled to allow for sunshine which, in their opinion, is God looking upon the farm. There are indigenous ways of managing farms to realize the maximum productivity of farm products.

With regard to harvesting farm produce, the group discussions revealed that there was no sacrifice or ritual apart from what is done by the chiefs during the festival time on behalf of the community. A few of the key informants intimated that they saw their elders carry out the practice where some of the crops were first cooked on the farm and left at the *asheshae* –the rest-spot on the farm. It is believed that the ancestors should be the first to taste of the produce of the land. This belief endures to this day however; those who have converted to Christianity and Islam intimated that they have since abandoned such practices.

At Etuntumeremu and Apaaso, it came up during discussions that it was a taboo for children to be the first to harvest fresh maize from the farm for consumption. It is their belief, that the ancestors should first have their share before any human does so. Again the morale is, if early harvesting was not checked by instituting that taboo, the whole farm could be harvested at the fresh stage without allowing any of the crop to dry up for storage, to ensure food.

security. This practice, then, speaks to an indigenous knowledge base for conservation to ensure sufficient food supply during the lean season.

With regard to storage, the findings show that in the past proceeds from the farm were left at the rest-spot on farms for some time before they were brought home. On the farm, as was explained by most groups in all the four groups, crops like yam were left on the trunk of the big trees which had been felled during land preparation; and maize was gathered in heaps and also left on the farm. This was to allow the crops to lose a little more moisture in the sun before they were stored on barns at home.

Indicators of soil fertility, drought, and weather patterns

Participants of the FDGs and key informants from the four communities stated certain trees and plants on a piece of land can be indicative of soil fertility and therefore an ability to sustain the cultivation of food crops. On the contrary it was also observed that the presence of certain trees and plants indicated drought while the regeneration of leaves on some of the trees indicated the arrival of the raining season.

The presence of trees such as '*Odum*', '*Wawa*', '*emere*' '*ɔwama*', '*Odoma*' '*emera*', as well as plants and weeds such as '*Ahumakyem*', '*Ogyama*', '*Honhon*', '*Enfonfo*', and some wild food plants such as '*Ahabayerε*' and the local banana were mentioned as being indicators of fertile soil. The *Ogyyama*, *onyina*, and *Wawa* were mentioned as drought resistant trees. Most of the groups established the fact that they knew by usual observation that weeding was done in the month

of January for the rains to set in by the end of February. Specifically, discussion groups at Etuntumeremu explained that trees such as '*emera*' shed their leaves and regenerate fresh ones, an indicator that rains would soon be due. This informal way of identifying weather patterns assist them to demarcate different climatic transitions. As a tradition, farmers would then clear their land and prepare them the moment they observed such transitional phenomena on trees. The trees begin shedding their leaves – in the dry season (*December-January*) in order to prepare for the spring rains which lasts from February through July.

Subsequently, it was apparent that planting was carried out in the month of March through to April. At this point, it is worth mentioning that most of the key informants, as well as participants in the groups observed that due to recent global climatic inconsistencies, farmers are by and large relying heavily on conventional weather forecast and other meteorological predictions for their annual planting activities.

Nature of farming systems

Slash and burn is the most common way all the communities prepare their land for farming cultivation. This, according to most of the groups, will continue to be the practice for many years to come, due to the nature of the vegetation in the area. As described by one key informant, "heavy wood and thick grass" makes it almost impossible for heavy agricultural implements like tractors to be used in the area. However, the main belief and value that inform this practice is that through burning, the ashes significantly add value to the soil and this, the local

people believe, also helps crops develop very well even though through the practice most soil organisms are destroyed, from a scientific standpoint. At Apaaso, the study showed that the decomposition of dead organisms also go a long way to improve soil fertility.

The most commonly practiced system of farming in the study area is the mixed crop system. This is the system of choice primarily due to the small size of land available to the individual farmers. In this regard, focus group participants also noted that they had their own way by which they managed to cultivate a little bit of every crop they will need to feed themselves on the same farm. It also came to light at Akyem Awisa and Etuntumeremu that the selection of what and where to plant is dictated by an initial inspection of the soil type in the area. For instance, pepper, according to the groups in the study, does very well on the hilly parts of the farmland while yams thrive well in sandy loam soil. Cassava, on the hand, does well in both sandy and clayey soils. Water-logged areas and wetlands are usually used for cultivation of rice.

The study also found that with regard to crop arrangement on the farm, that maize, plantain and cassava farmers decide which one to plant before the other. Among some groups in Apaaso and Akyem Awisa, maize is most often the first to be planted, followed by others such as plantain, cassava and yam before the permanent crops such as cocoa and oil-palm. On the other hand, in Etuntumeremu and Bogyesango, plantain and cocoyams are the first to be planted often around the felled trees under heaps of tree branches and brushes. Fire is then set to it and burnt around the plantain and cocoyam. Maize is then and the

perennials thereafter. In both situations, the findings of the study showed that permanent crops always come last in the order of planting priority. The rationale behind this order is to ensure that farmers and their families are sustained by the quick-yielding crops while waiting for the more valuable perennials to be ready for harvesting.

The study showed that taboos relating to farming systems were informally codified as a measure for the preservation and conservation of trees and plants as well as the land. For instance, it is a taboo throughout the study area for anyone to be found cutting trees such as *odum*, *emere*, cedar, *ahomakyem* and *okuo*. At Akyem Awisa and Etuntumeremu, certain crops are not to be planted on certain sacred days. Plantain, for instance, cannot be planted on Wednesdays. It is believed that crops planted in violation of this taboo do not grow to their full yield.

Offenders of these taboos were punished at the chief's palace by paying a fine (often a sheep and or schnapps); and at the family level, the individual is reprimanded by the *abusuapanin* for the offence. With the exception of one group at Etuntumeremu where non-offenders could be rewarded for obeying the traditional laws, other communities did not have any rewards for non-offenders.

Traditional beliefs, values and norms that influence the nature of farming systems

The value of the slashing and burning of the cleared brush and trees over the plantain suckers and cocoyam, according to the local people as discussed

during the study is that the potash that is deposited in the soil after the process allows proper germination and healthy growth of the crops. Thus ensures their maximum yield capacity. One major reason why plantain suckers are given an early planting priority, according to the research findings, is that their broad leaves serve an irrigation function, with the capacity to distribute rainwater evenly to other crops on the farm. It is therefore seen as having an added sprinkler value.

It was also discovered that most of the trees possess medicinal value and so had to be preserved. According to one key informant, the outer layer of trees like *Okuo* is used to treat male sexual impotence and other erectile dysfunction. *Onyina* is also used to cure infertility in women. An informant noted that *onyina* restores vitamin E in women. A weed like '*Nfonfon*' was mentioned by some key informants to be a good source of treatment for diarrhoea. The informant further explained that when the people are healthy, they can work to build up their communities (for 'a healthy society is a happy society') and, thus, promote the development of the entire community and the nation at large.

This was generally corroborated by most of the members of the discussion group that, most of the taboos have contributed to an improvement in community health.

Forest and forest use

Research findings suggested that there used to be a lot of forestland in the study area in the very long past, which has now disappeared as a result of persistent farming activities in the area. This claim, according to most of the

respondents, is attributable to the fact that contemporary times have seen a surge in population growth. With the exception of the Awisa community, which claims to have a small piece of virgin forest on a hill known as *Awisabere* respondents in the other communities noted that the only remaining forest reserves were the sacred groves where they had their ancestors are buried. It was also established that all the sacred groves were pristine reserves which had never been cultivated. In each of the communities, communal watchdog groups had been formed to police these treasured patches of sacred places in order to ward off poachers and encroachers.

It was recognized throughout the discussion groups that whenever a member of the community wanted to access anything from any of the sacred grove, the person had to first get permission from the caretaker of the grove by first expressing in unambiguous terms the reason for wanting to enter the forest. Permission for such requests often did not attract the performance of any ritual sacrifice. However, sacrifice in the form of libation is usually required of an individual going into the grove to harvest items such as products of medicinal value from trees and other plants. The libation is considered a equivalent to seeking permission from the ancestors who might be "asleep" at the time entry and therefore a necessity to plead for having to "disturb" their sleep. The sacrifice, they claim, is also observed to ask for protection, direction and good guidance while in the midst of the ancestors during the early hours of the day. It was noted during the study, in adherence to traditional custom, one usually entered the forest

to collect medicinal items in the early hours of the day when, it is believed; the sun would have not yet disturbed the potency of medicinal plants.

On the other hand, if anyone wants to cut a tree from the forest, the chief would have to be informed and consent granted prior to the commencement of such activity. When permission had been granted, the chief asks for a bottle of liquor to pray to the ancestors and the gods by pouring libation, informing them about the need for such an enterprise on behalf of the petitioned.

Throughout the communities, it was noted, hunting in the sacred groves was forbidden. There were animals such as leopards, antelope, and bush-baby among others. It was noted that such regulatory oversight was part of a holistic approach to environmental conservation of not only trees but the entire ecological biodiversity.

Today, people secretly enter the forest by night and cut down economically valuable trees; to hunt and to engage in kinds of environmentally harmful activities. To a very large extent, such activities have immensely contributed to putting the few remaining patches of primary forests on a slippery slope to extinction. To discourage these negative activities, anyone apprehended for such acts is punished by the imposition of costly fines up to but not limited to the payment of a hefty amount of money and liquor and the slaughtering of a sheep. Discussions showed that such fine varies from community to community. The Akyem Awisa community, for instance, has a chief who also doubles as herbalist. He therefore has deep interest in adhering to traditional rules that encourage a strict conservation of all known plants with important medicinal

properties. Infractions on institutionalized prohibitions in this regard are consequently met with severe ramifications.

The relationship between animals in the forest and clan totems

There was consensus among most of the FDGs that, in the past, the forests gave safe haven to most of the animals (clan totems) that, mythically, were believed to protect the various clans. Consequently, members of clans revered these animals as sacred and did not hunt them for food. Their spiritual importance trumped their culinary value. However, it was noted that a lot of these animals have either emigrated or gone extinct as a result of human activities such as hunting and mechanically induced noise in and around their habitat in the forest. Chainsaw operations are a typical example of such animal-repelling activities.

Two of the key informants intimated that the last leopard for the *Ekwie* clan, for instance, was killed intentionally by the community due to its wild nature.

At Apaaso, Akyem Awisa and Bogyesango, many research participants explained that there are a few remaining totems of certain clans that are still sighted around in significant numbers. This was attributed to the fact that those animals were not eaten by the people of these communities and therefore are not hunted. Examples of such animals are the crow (*Kwakwandebe*) and the *Asona wɔ'* (a snake specie) both totems of the *Asona* clan; and the parrot for the *Agona* clan. *ɔwiya* (the Bush-baby), although not a totem, was mentioned at Etuntumeremu to have emigrated farther away from the forest as a result of

increased human activities in and around the forest. The migration of the bush-baby is a phenomenon, they claim, has left their community without an informal and indigenous means of telling the time of day naturally because they seldom hear its timely cry which also served as an indigenous timepiece for local inhabitants.

The findings revealed that, in all the communities, it was accepted that the trees and twine were protected by the taboos purposefully for regulated conservation in order to sustain and preserve the practice of herbal medicine as well as the life forms. It was noted that the process of preservation and conservation was done by passing on economically and medicinally important plants to younger generations through an oral tradition of information and knowledge transfer. The philosophical underpinning of this careful knowledge transfer was to preserve these traditional values for sustainability in perpetuity.

Traditional beliefs, values and norms that influence the forest use

Participants in the study in all the communities agreed that forests were preserved and conserved through the institution of a systemic set of taboos for posterity: sacred days for no entry; the prohibition of the setting of fire around the sacred groves; the prohibition of gathering of fuel-wood and hunting for game in the forests at certain times of the year. Offenders were severely sanctioned. From a metaphysical worldview, such taboos are also intended to discourage people from disturbing the ancestors who are deemed to be sleeping. Key informants also explained that the practice promoted the development of sustainable forests

which when left un- destroyed serve as winds-breaks that protect housing during storms.

Very important trees were left in the forest to prevent them from getting extinct. For example, trees like '*odee aba*' and '*twiapia*' – the white-cola – could only be found in forests and sacred groves. These reasons, among others, were some of the justifications for barring unlawful entry into forest zones in the communities.

River systems

Before the introduction of pipe-borne water to the communities, inhabitants in the study area, it was noted, derived their source of water for domestic use from the rivers and streams in the area. Findings revealed that the rivers that run through the communities (namely '*Kosovo*', '*Mmaygiwa*' and '*Krɔɔ*') were the main sources of water for the Akyem Awisa, Bogyeseangno and Apaaso communities '*Kyerefin*' and '*Kykyerepoa*' were the main tributaries of the '*Kosiko*'. The Etuntumeremu community had '*Brapon*' or '*Kosiko kɔkɔ*' and '*Akyeremade*' as its sources of water.

At Akyem Awisa, Bogyesango and Apaaso, some of the key informants raised the following facts which were validated:

- Although it is a small river, the '*Mmegyewa*' stream at Apaaso has never dried up.

- Development of settlements and other human activities caused some of the watersheds to permanently dry up. An example is this trend is the *Kyerefin River*.

An informant explained that the *Kyerefin* which literally means “stay away from pollution,” runs from the Presbyterian hill through the place where the main street exists today to the Apaaso junction to join the *Kosiko River*. The *Kyerefin* has since disappeared. It was also recounted that a Presbyterian secondary school was to be built around the ‘Mmegiwa’ stream but as the myth and the belief go the project folded because the river did not want the people to be thirsty so it did not allow the project to progress and therefore was eventually abandoned.

In one of the groups at Akyem Awisa, discussions revealed that the inhabitants living along the *Akyere River* were not adhering to the customary laws that governed the river. They also claimed a stranger came to inform the leader of the community about a looming disaster if the continued violation of the law was not stopped. In response, the necessary rites were immediately performed by the chief and his elders to pacify the river and plead with the ancestors for protection to avert the looming disaster. Some in the community noted that prior to the performance of the pacification rites there had been reports of high infant mortality rates in the town.

At Etuntumeremu, all the groups acknowledged that preparing the land along the banks of the river for farming purposes was prohibited. It is commonly agreed that this practice provided shade over the river and made it wholesome for drinking and for other domesticated chores. They also have a belief that the

Supreme Being divined thick bamboo plants to grow along the banks to protect the river. It was noted that due to a growing lack of environmental consciousness, the situation is changing in a negative way. "Today the river is so polluted that it is not good for drinking," an informant intimated. It was observed that over time fish stocks in surrounding rivers and streams have been on a significant decline due to human activities. To recall what an informant said, "the entire river is depleted and overgrown with weeds. It used not to be so." This confirms that the local inhabitants, in their own way, know that there is a kind of biological cycle which allows the fish stock to feed on water plant and algae in the river for aquatic life to thrive. The people of Etuntumeremu said they believed that the rivers around them were mothers and would not allow a native of the town to drown.

Traditional beliefs, values and norms that influence the river systems

Research analyses show uniformity in institutionalized norms and taboos governing the use and the cosmic conceptualization of rivers and streams throughout communities chosen for the study. For instance, the following commonalties were identified:

- It is a taboo to fetch water from a river with a black pot.
- It is a taboo to wash ones clothes in a river or stream.
- It is a taboo for a woman in her menstrual cycle to step into a river or a stream.

The core of this belief is premised on the fact that the river runs through all the communities therefore an upstream pollution could have negative health repercussions for any of the communities at the lower end. These taboos, then, are the indigenous precautions put in place to prevent pollution of watersheds in the communities. It is a taboo to step into the river on days identified as sacred and most of the river gods in question are believed to be born on Friday.

There is also a prevailing belief that if the taboos are properly observed and adhered to, the rivers will not allow local indigenes to go without potable water. With such a contextual construct on the essence of water, taboo and life, it is believed that rivers and streams leave portions of water along critical sections of the waterbed such as under the roots of big trees along the banks to sustain people during the dry season.

One informant at Etuntumeremu intimated that schools of fish were kept in a hole by the spiritual custodians of the river and released during the rainy season to protect them from dying. This was corroborated by two other research groups in that community.

At Akyem Awisa and Bogyesango, most of the informants agreed that the taboo prohibiting fishing in the *Kosiko* River was informed by the belief that when the fish stock is depleted, the ultimately dies. Another fact is the belief that fishes in any river are considered the children of that river. The river is therefore believed to be a mother in a spiritual sense. On the part of Apaaso inhabitants, the reason to restrain from fishing in the *Kyekyerepoa* is underscored by an environmental concern that the river is already polluted and therefore its fish

stock is not safe for human consumption. To confirm this, most of the groups at Apaaso cited a historical guinea worm epidemic in the Township believed to have originated from the *Kykyerepa*.

Throughout the communities, it was noted that adherence to these taboos is becoming increasingly unpopular. In most of the discussions, it was observed that younger generations pollute the river through various unhealthy kinds of fishing practices including the use of toxic chemicals. At Etuntumerem where a lot of alcohol is brewed, the elders have observed that the distillers often discharge distillery waste and effluence into the *Brapon*, a practice that, in turn, has negative ramifications on aqua-life affecting both fish and river plants.

Findings again revealed that the chemicals used in spraying farms significantly contribute to the change in the taste of drinking water collected from rivers in the communities in the study.

Unlike the forest where people believe taboos were instituted to preserve and conserve trees and other plant life for long term sustainability, some participants in the FDGs as well as some key informants believed that the taboos about rivers were established to allow the fetish priest to have adequate time and space to perform required rituals in the river on sacred days. Such rituals are not witnessed by the public so they were done on sacred days when the river-side was virtually empty. However, a few participants differed from this proposition insisting that the taboos were established to control and conserve aquatic life.

Again, findings revealed that offenders of these taboos are sent to the chief's palace and are asked to pay a fine, usually in the form of a sheep, liquor

and money. The exact penalty was contingent on the gravity of the offence. Participants noted that some taboos attracted heavier punishment. According to most of the groups, the punishment and atonement meted out to any offender affected their families too. In some instances, such violations could have ripple effect on the larger extended family and even the clan of the offender. To a greater extent, then, these taboos and the austere punishment they often attracted served as a very useful deterring method of environmental protection. Often, local inhabitants would make conscious efforts to stay away from violating these rules and thereby averting the potential shame and the fine that were associated with such violations.

Notwithstanding the fact that interest in TKS has been on a slippery slope in recent times, most of the discussions validated that taboos continue to serve a useful function in environmental protection and regulation in the communities. This is due, in part, to the fact that a mythical presence of revered ancestors still prevails in the communal mentality. It was also affirmed, however, that the increasingly impersonal character of communal life and a growing sense of the materialistic and mundane appetite for human needs and lifestyle has engendered a sense of apathy and self-centeredness in contemporary generations. This collective social transformation has significantly contributed to the erosion of that social core of collective belongingness and responsibility and that mythical feeling of protection by a metaphysical presence. Others also attributed this cultural shift to modern improvement in social services such as the provision of

healthy source of water such as stand-pipes and bore-holes and a change in the religious belief systems and practices in these communities.

The effects of education and religion on TKS

As noted by one key informant, "culture is not immortal, it dies." This informant opined that the cultural belief system of the people in the area is gradually changing and perhaps going extinct as modern educational systems become more accessible and religious beliefs get increasingly more diversified. Other informants added that religious faiths such as the Christianity have made people very indifferent to indigenous traditional practices. They unanimously claimed that "this liberty has made it seem as if the taboos relating to the agricultural forms and practices no longer exist." They observed that, in recent times, people violate age-old customary laws with impunity. Such offenders chose to go to farm on sacred days; plant plantain on Wednesdays, fish from rivers, among others. The most serious of these violations in environmental terms, it is noted, is the impunity with which forest timber is harvested with economic motivation as the sole objective, ignoring future environmental repercussions. It was also noted that most culprits arrested and summoned to the chief's for these encroachments often held beliefs – usually Christian or Islamic – perceived traditional indigenous norms and practices with disdain.

Research participants from these religious groups strongly disagreed with the allegations that they are disdainful of the indigenous system. They argued that neither Christianity nor Islam teaches any one to destroy. Since they also have a

charge to keep on protecting their environment and were born first as natives of the community and Christians and Muslims second, they expressed deep concern about the negative attitude proffered by some in the communities as a truism regarding the Islamic and Christian faiths. It was quite clear in the discussions that although education and religion were crucial for improving the quality of life, some tend to exaggerate the civilization that comes with it. A local axiom "*sua tra ne mpetump*" which they cited to assert this point literally means being overzealous about modern (western-based) civilization can have negative social cascading effect. Participants in several of the group discussions unequivocally asserted that western education has had adverse impact on certain critical aspects traditional knowledge thereby having a spiral effect on the importance of traditional authority and on indigenous culture in general. This is due to the fact that there is increasingly a shift and overdependence on western way of life as the sole indispensable path to modernity and socioeconomic development.

In one of the groups at Akyem Awisa, the surge in disrespect for and an increasing less-reliance on the wisdom of elderly people were cited as one of the most devastating by-products education and religion have wrought on a hitherto harmonious and cohesive youth-elder social dynamic. As a result, older people also find it difficult to comfortably interact with and consequently transfer traditional knowledge and wisdom to younger generations.

The good side of foreign education and religions was neither overlooked. It was noted that education has enabled the communities to improve their farming practices through the application of existing and emerging technological

advancements in agro-engineering. On the subject of the new religions, it was claimed to have made individuals more assertive and confident in their perception of the world, translating, in effect, into an environment of openness to external approaches to activities such as farming. Such openness to innovation contributes to improvements in farm practices.

The effect of government policies and local governance issues on agriculture and the environment

Insights into this part of the study were discussed and analyzed with Agricultural Extension Officer (AEOs). Inputs by Extension officers were very critical to the research in that their expertise in modern agricultural practices helped put indigenous and modern forms into a better perspective in an overarching theme on sustainable development. During discussions sessions, it was established that policies relating to agriculture mostly originated from the government. Most of the Extension officers many of whom possess several years of field experience, asserted that, when diligently implemented, most government agricultural policies aimed at rural farmers have been an invaluable tool for success to many farmers and the communities as a whole. The Extension officers noted that the objective of government in matters on agricultural policy is primarily to ensure food security. Examples of such policies were given as the equitable deployment of Extension Officers throughout farming communities and the youth-in-agriculture program introduced in the study area.

As a priority, the work of the Extension officers in the communities is to educate farmers on current and emerging methods of modern farming and to encourage them to practice these modern approaches to farming as a way of sustainable agricultural reengineering. Also, new and improved varieties of crops and input such as herbicides, pesticides and mechanical equipment are supplied to farmers throughout the communities.

The AEOs explained that the latest government agricultural policy – youth in agriculture program – which is part of the national youth employment program is a new program recently introduced by the Ministry of Food and Agriculture (MOFA). According to the AEOs, the goal of the policy is to organize young farmers in groups and encourage chiefs and landowners in the communities to release large tracts of land to the program for commercial farming. As part of the program, the government provides the necessary agricultural inputs to these young farmers on credit. Repayment for such assistance will be honoured at the end of the harvest season. The AEOs explained that such interventions by the government are not opposed to the traditional agricultural practices but instead, improve the food security situation in the country and, by and large, improve agriculture as a sustainable and viable foreign exchange earner for the economy.

Although the research findings confirmed the above, most of the concerns expressed by discussion group participants were skewed towards what they saw as the negative impact of such governmental policies and interventions. This group generally focused on the harmful effect of chemicals on agriculture. Changes in soil properties, food taste and the destruction of soil organisms and

biodiversity in as a whole; and chemicals pollution of rivers and streams are among many other environmental damages.

Throughout the discussions, it became apparent that wildlife such as snails and earthworms were not easy to come across these days. According to most of the people in the discussions, "they are virtually extinct as result of the chemicals we use to spray our farms."

The focus groups, particularly the female groups, claimed that the quality of vegetables produced currently are far less nutritious that past harvests. It was observed that:

'Vegetables like garden-eggs and tomatoes, these days, contain too much water and above all have a short preservation shelf life whether fresh or cooked; 'the spraying of the chemicals on our crops is doing more harm than good; chemical residues are washed into the rivers and the use of such chemicals is causing an incremental depletion of fish stocks in surrounding rivers and streams. We have lost most of the trees along river banks to these dangerous practices; we are developing strange diseases which were unknown to our parents. It is affecting the potency of our husbands'. (Comments made by female participants in an FGD).

These observations surmise the concerns of the women groups on the improper use of modern forms of agricultural technology. It was observed that greed constituted the underlying factor motivating such practices, practices that threaten the very core of indigenous-based forms of agricultural practice in these communities. The discussions also revealed that timing for the disbursement of

government loans to the farmers was not favourable to them. Punitive action taken against farmers on delinquent payments such as court summons and threats of legal suits also deter prospective applicants from accessing much needed financial assistance. In addition, the court threats were mentioned as a deterrent. They explained that such potential threats make such loans a bane on farmers, not a relief.

Effects of economic activities and foreign-based modernization on culture

Apart from a few white-colour jobs, the research findings showed that farming, production of palm and palm kernel oil, kenkey production, palm-wine tapping and the *akpeteshi* distillery industry, as well as illicit logging by chainsaw and the sawmill operators are the main sources of economic activity in the area. A critical look at many of these occupations during group discussions brought to the fore the effects of such activities on agricultural forms in the area and on cultural values in general. Respondents made remarks and observations that point to a significant grasp of the impact their activities on the development of their communities. Throughout the group discussions, it was acknowledged that while farmers slashed and burned forests and brushes to prepare their land for farming, producers of kenkey, palm and palm kernel oil, and alcohol distillers also felled small trees for use as fuel-wood, very much aware of the environmental ramifications of such activities. Chainsaw and sawmill operators were accused to be the worst offenders.

Among others, the following concerns were expressed in relation to the timber industry in the area, spearheaded by chainsaw and saw operators:

- 'The chain-saw operators have stolen all the timber and depleted the forest; they cut trees at night so they are thieves. Our children may not inherit any forest
- 'By their activities, the forest is gone, so rainfall patterns have changed.'
- 'All the wildlife has migrated farther away from the area because their habitats have been destroyed.'
- 'These operators and contractors have destroyed even rivers and have caused river beds and other watersheds to dry as logs are dragged through the rivers with impunity and in the process altering water paths. Water bodies also dry up when trees are excessively removed from the ecology along their course.
- 'They give little or no compensation to us after they have destroyed our crops while raking in huge amounts of wealth through such activities which are detrimental to our development and existential survival.'

Modernity and foreign cultural influence were mentioned as major contributing factors that have impacted the social behaviour of most people today particularly the younger generation. Concerns were made throughout the group discussions in the direction that the young people behave like strangers in their own communities and often do not want to be identified with their own cultural

values and belief systems. Most of the older respondents lamented that given the difficulty they have in trying to inculcate into the younger generations the indigenous way of life and culture; they foresaw a gloomy future in terms of the sustainability of their values vis-à-vis communal growth and development as they have come to know it.

On the contrary, improvements in agriculture today have been attributable, in part, to the effect of modern social, economic and technological advancements on local cultures. Unlike past practices, planting is now planned in rows and lines; fertilizers are applied to improve crop yield and herbicides are applied to reduce labor cost. Consensus on this assertion was, however, divided with one camp insistently noting claiming that after a third application of some chemicals to a particular land, it loses its soil richness and therefore its productive capabilities highly compromised. Secondly, chemicals contribute significantly to the loss of other wild food products such as mushrooms.

Channels of information dissemination

Throughout the focus groups and among key informants, it was established that information was disseminated in the past by a town-crier through *gongong*. In recent times, however, information is circulated modern forms of broadcasting and other alternate channels. In small towns like Apaaso and Etuntumeremu most of the groups mentioned that they still practice the beating of the *gongong* largely because it is the less expensive and the most efficient way of getting messages to everybody in that rural setting. Akyem Awisa and

Bogyesango community also uses the *gongong* for announcements at funerals as well as the radio; but due to the changing face of the town by way of cultural evolution, most of the groups noted that radio is increasingly becoming the medium of choice for getting both local and national information.

TKS and sustainable development

This section makes a quick run through the interpretation of the findings gathered in the study in relation to the objectives of the study. It analyses the relationship between traditional knowledge system as an important element of culture and the complementary role it plays towards the achievement of sustainable development from two perspectives: the traditional and modern management practices of the various agricultural forms practiced in the communities. The traditional management practices refer to an environment where agricultural forms were managed strictly following the precepts of culture. In this case, agricultural practices are managed by strict adherence to rules and regulations of the cultural belief system. The modern management practices, on the other hand, refer to a more contemporary worldview where agricultural forms are informed by modern advancements in agro-technology and research, foreign influence, and modern institutions of governance such as government policies and law enforcement. The impact of the perspectives on sustainable development is also discussed.

Perceptions about land, forest products and river systems

Collectively, the respondents believe that land, forest and rivers are divinely endowed. From this cultural perspective, human beings are only custodians and trustees of land. The family heads and the chiefs who are the designated heads have enough authority to protect the interest of the ancestors. They are to see to it that the resources in their care are properly managed in such a manner that as to ensure sustainability. For example chiefs are to ensure that traditional rules regulating the management, preservation and conservation of lands are strictly adhered to. The intended purpose of such traditional observations is often to protect generational properties such as sacred groves, demarcated forest reserves and special trees of spiritual and medicinal value. Key informants and participants in focus group discussions observed that taboos serve as checks and balances in managing the use of land and other natural resources.

Given the ignominy often associated with the violation of taboos and the punitive costs in terms of pacification rites, efforts are made by many inhabitants in the study area to respect and adhere to these taboos. Implicit in these set of rules and corresponding punishments, then, are derived the benefits of ecological and agricultural advantages such as allowing a piece of land to fallow and replenish. On the gamut of benefits derived from the indigenous practice of setting certain days aside as sacred during which people are prohibited from engaging in any form of agricultural activity, some participants noted that it was also designed to give farmers time to rest and recuperate. A restriction on an unrestricted traffic into the forest was also to encourage forest conservation.

Restrictions on fishing in rivers, collecting river water on sacred days, using black pot to fetch water, and prohibition of women from entering any river during menses, according to the respondent, were designed to allow river bodies, which they conceive to gods, to rest and provide ample water supply to the community throughout the year.

The chiefs and elders perform rituals such as of pouring libation and slaughtering animals for bumper harvest and good year of rainfall. Men, as heads of their families are the lead actors involved in such normative practices. They familiarize with the rituals and often invoke them on behalf of their families to appeal to the gods for food security for their families. The belief is that such rituals pave the way for a bumper harvest during the farming season. It was therefore mostly an inclusive participatory communal affair. In recent times, these taboos exist mostly in the distant memory of most people as the enthusiasm and commitment with which they were adhered to has incrementally faded with time.

Perceptions about modernity, foreign influence and government policy/governance issues on the agricultural forms

Respondents were of the view that people, these days, are less cautious and often are, without hesitation, decisive their way of doing things. This non-rationalism is also accompanied by a good measure of individualism and greed. Due to this phenomenon, agricultural activities such as land preparation, planting and harvesting are sometimes done through the quickest way of getting the most out of these activities. Unfortunately, these easy way out of things can also be

harmful particularly to land and the environment. People want to increase their income in order to enhance their quality of life and therefore, they resort to environmentally degrading activities such as illicit logging in sacred groves and forest reserves with complete disregard for future economic and environmental consequences to the community. Timber logs are cut and hauled through farms and pristine vegetation causing incalculable damage in the process.

According to the respondents the chain-saw operators are in a very negative way impacting local food security with chain effect ramification for national food security since most food supply in major cities and towns are produced in rural parts of the country. At Etuntumeremu, respondents unanimously asked that the government should empower traditional authorities with the necessary legal enforcement tools to pursue and prosecute such violators.

CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSIONS AND
RECOMMENDATIONS

Introduction

The aim of the study was to examine the influence that existing TKS have had on achieving sustainable development goals in the area of agricultural practices in the Akyem Awisa area in the Birim South District. Based on the findings, recommendations are proffered as critical steps to take in order to maximize the benefits of indigenous wisdom and practices by integrating them into long term development paradigms. The study population was selected from the eighteen years and above cohort in all the seven communities in the research area. From the population, four communities were randomly selected using a random sampling methodology. In-depth interviews with key informants and focus group discussions participants were conducted as the major data collection technique.

A total of twenty-five (25) discussion sessions were conducted throughout the study. Fifteen (15) key informants including agricultural extension officers, community elders, religious leaders and retired educationists were interviewed. Ten (10) focus group discussions were also held.

Summary of findings

The study confirmed the assumption that TKS plays a paramount role in the achievement of sustainable development goals in rural communities, particularly through agricultural practices.

The research findings show that agricultural forms are significantly influenced by traditional systems which also have a substantial impact on achieving communal sustainable development goals. For instance, within the study area, it was a taboo for anyone to collect water from a river or stream using a soot-black pot or container. The reason for this rule was environmental. If people were allowed to draw water with containers that had been blackened over time as a result of other functional utilities such as cooking, the soot could be washed downstream causing pollution. Taboos thus protected rivers and water bodies from being polluted and thereby enabling downstream dwellers to have access to healthy potable water. With regard to land and forest use, norms such as timing for planting crops such as plantain and cocoyam, usually just after the big trees were felled enabled a healthy growth cycle for optimum harvest. Burning of the bush also added nutrient-rich potash to the soil to support plant growth. The heat from the fire also enhanced the germination of the seeds of trees of commercial and medicinal importance. These are indigenous practices that enable a continuous cycle of sustenance for families in these communities.

The findings show that wise rules and taboos guided the heritage of the society and served as the base on which a management architecture for sustainable development were designed. The research findings also substantiate

the presumption that the rules for sustainable environmental conservation were functionally interlaced with prevailing religious beliefs, norms and values. However, these environmental sustainability and sanitation building blocks which were important integral parts of the traditional systems, have given way to modernity and foreign influence. The reduced respect of the TKS and natural resource management at the community level was mentioned as a case in point of this observation.

The study revealed that the socio-cultural conditions in the communities have informed the extent to which traditional knowledge systems influenced agricultural forms. With the advent of modern systems of governance, the loss of authority by traditional leaders has impacted the conventional traditional approaches to sustainable resource management of environmental resources and how agriculture is practiced.

As narrated by the communities, the attainment of the sustainable development goals is inhibited owing to the following challenges:

- Problem of low education levels and the understanding of inscriptions on agricultural inputs.
- The non-usage of local languages on the labels of agricultural equipment and tools.
- The residual effects of the chemical inputs on agricultural forms.
- Overstretching religious faith and greed. In this case, most people downplayed the importance of traditional knowledge systems and often emphasized the exploitation of environmental resources for their

personal satiability.

- Lack of authority for traditional leaders to mete-out punishment to offenders as it used to be in pre-modern times.
- Lack of employment for people.

Conclusions

- It is evident from the study that traditional knowledge systems have a significant influence on achieving sustainable development goals through agriculture yet these knowledge systems are undermined by religion, modernity and invasive foreign influence as well as government policies.
- Current inhabitants in these rural communities have redefined the meaning of tradition and overstretched contemporary religious faith to exploit the agricultural forms as modernity and foreign influence have contributed to an incremental decline in the value of traditional practices and wisdom.
- Government policies, on the other hand, are not to be seen as a hindrance to the achievement of sustainable development goals. They rather ensure food security that also promotes sustainability. But often these policies have underemphasized the critical complementary role of existing indigenous values in sustainable growth.

Recommendations

The study recommends the need to establish a link between culturally generated knowledge systems and modern development models. This could be done by linking the values embedded in the traditional knowledge systems with cultural folkloric narratives which may be perceived as outdated and unacceptable to the contemporary people, such as: "if one uses the back pot to fetch water from the river that one would lose the mother through death". Such stories need to be reemphasized and presented to meet contemporary needs and realities. In other words, modern ways of life should be defined in a way that harmonizes with longstanding cultural values. This could be done education as the major platform for participatory community involvement and awareness in areas involving environmental awareness and agricultural practices. In this way, the many cultural practices that are on the verge of extinction could be revived and deployed as an engine of sustainable growth to improve various agricultural forms.

The study also recommends the use of TKS as management plan which will take into account the needs of current and future generations in these communities. To achieve this, communities should be sensitized on the centrality of these cultural values, beliefs and practices to growth, and the need to protect them, preferably through group training and other forms of intervention by both state and private actors such as non-governmental organizations.

Traditional beliefs and norms could be integrated in projects relevant to agricultural forms in order to preserve the importance of traditional knowledge systems in development. This will be achieved through the development of

specific information and training modules targeted at all levels of intervention including saw-millers, agricultural extension officers, farmers and the government. This will bring about an attitudinal change to engender a culture of sensitization and capacity building among traditional leaders, decision makers, family heads and communities in general.

Existing traditional values, rules and regulations must be modified to allow the current society to understand them and ensure easy application to promote the overarching goals of sustainable development. The “*nnoboa*” system, for instance, could be revisited. People could be encouraged to proactively prevent or reduce the degradation caused to the environment through the continuous application of harmful agricultural chemicals and subsequent washing of these chemicals into rivers to destroy aquatic life.

It is recommended that agricultural inputs be handled solely by the technical officers (AEOs) in order to ensure their correct application. Inscriptions on these chemicals must be in the local languages too. It is believed that this will help save the threatened earthworm, snail, mushrooms and herbs species.

Locally, educated people, who equally appreciate the need to protect the environment, should be used as resource persons to visit basic schools and help to inculcate into the youth the importance of traditional values, beliefs and practices. This will ensure sustainability.

Information is crucial to many of the constraints facing the achievement of sustainable development of TKS. To develop an informed community, there should be a balanced involvement and participation of the youth in the traditional

activities of the communities such as rites, funerals and festivals. There should be free flow of communication between the elderly and youth. There should also be local arrangements between religious bodies and the community to find a common ground to protect the belief systems, values and norms for future generations.

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APPENDICES

APPENDIX A

KEY INFORMANTS/FOCUS GROUPS

	Awisa	Bogyesango	Etuntumerem	Apaaso	MOFA (ODA)	Total
Key informants	6	3	5	4	0	18
Agricultural						
Extension	0	0	0	0	2	2
Officers						
Men Groups	4	1	2	2	0	9
Women	4	1	2	2	0	9
Groups						
Total	14	5	9	8	2	38

APPENDIX B

ISSUES ARISING FROM THE FOCUS GROUP DISCUSSIONS

1. TRADITIONAL KNOWLEDGE SYSTEMS OF LAND

- a. Organisation of land
- b. Indicators of fertile soil
- c. Weather conditions and soil fertility
- d. Economic and medicinal importance of certain plants and trees as well as their preservation/conservation
- e. Indicators of drought
- f. Traditional farming systems
- g. Taboos, beliefs, values and norms
- h. Rewards and punishments
- i. The influence of TKS on modern cultural practises

2. TRADITIONAL KNOWLEDGE SYSTEMS OF THE FOREST

- a. The importance of the forest
- b. Traditional beliefs, sacrifices and norms related to the forest
- c. The importance of totems and plants in the forest
- d. Taboos related to the forest
- e. TKS operational in recent times

3. TRADITIONAL KNOWLEDGE SYSTEMS OF RIVERS

- a. Access to water in the past
- b. Beliefs and norms related to rivers and their usage
- c. Taboos related to rivers and water bodies
- d. The influence of TKS on river systems in recent times

4. MODERNISATION AND FOREIGN INFLUENCE

- a. The attitude of humans towards beliefs and norms in recent times

5. RELIGION/EDUCATION

- a. The effect of religion on TKS (culture) on farming systems
- b. The influence of education on TKS on farming systems

6. GOVERNMENT POLICY

- a. The effect of government policy on TKS and farming systems

7. TRADITIONAL GOVERNANCE ISSUES

- a. Traditional governance issues and their effect on the agricultural forms.
- b. Occupations and attitudes of people towards culture/TKS: (saw-mill/ chain-saw, farming, distillation of “*akpeteshi*”, the manufacturing of kenkey and palm oil).
- c. The effect of the various occupations on TKS

- d. How to curb problems associated with the activities of saw-millers
and chain saw operators
- e. Information and culture